

HUNTERSTON SITE STAKEHOLDER GROUP

The Sixty Fourth Meeting of the Hunterston Site Stakeholder Group will take place on
Wednesday 1 September 2022 at 1330 Hrs

Venue – The Waterside, Ardrossan Road, West Kilbride, KA23 9NG
Light Refreshments will be served from 1245 prior to the meeting

AGENDA

13.30 Chairman's Opening Remarks and Declarations of Interest

13.35 Chair and Vice Chair Updates and Correspondence

13.40 Actions and approval of previous Minutes

13.45 Hunterston B Site Reports

Hunterston B Report – Joe Struthers

Consultation on Decommissioning Proposals – Joe Struthers

ONR Report – Stuart Fannin

SEPA Report – Keith Hammond

Members Question and Answer Session
Public Forum

14.40 Hunterston A Site Reports

Hunterston A Site Report – Mark Blackley

ONR Report – Stuart Fannin

SEPA Report – Stewart Ballantine

Members Question and Answer Session
Public Forum

15.25 Update from Magnox

Bill Hamilton

Update from NDA

David Wallace

Update from Scottish Government

Diane Hamilton

Members Question and Answer Session
Public Forum

15.55 Any Other Business

Next Meeting Thursday 1 December 2022

**HUNTERSTON SITE STAKEHOLDER GROUP
SUMMARY OF KEY POINTS FROM THE SIXTY FOURTH MEETING
HELD ON WEDNESDAY 1 JUNE 2022 AT THE WATERSIDE HOTEL, ARDROSSAN ROAD, WEST KILBRIDE, KA23 9NG**

Chair's Opening Remarks and Vice Chair Updates and Correspondence

Mrs Holmes was pleased to welcome everyone in person. She welcomed Councillor Ian Murdoch to his first meeting as an Elected Member and welcomed back Cllr Alan Hill. Cllr Tom Marshall and Cllr Todd Ferguson were congratulated on being re-elected. North Ayrshire Council has selected Elected Members representing the North Coast as the Council reps on the SSG and there is currently one vacancy. Mrs Holmes conveyed her thanks to previous Councillors on the SSG – Robert Barr, Alex Gallagher and John Glover – particularly Mr Barr who had an exceptional attendance record at SSG meetings. The Chair and Vice Chair have had monthly updates from Hunterston A Site Director. They visited Hunterston B Station to view the upgraded defueling route. It was hoped that the Garnock Community Hub rescheduled visit would be before the end of June. The Chairs and Vice Chairs meeting on 20 May was online and included an update on NuLEAF (Nuclear Legacy Advisory Forum).

Actions and Approval of Previous Minutes

The Minutes of the virtual meeting of 3 March 2022 were approved and an update on actions received.

Hunterston B Report – Mr Joe Struthers

The focus has been on the statutory outage of Reactors 3 and 4 and the approval of the safety cases for defueling on 16 May 2022. Flask corridor improvement works have taken place over a six month period. Covid is being managed on site, with restrictions reduced. Industrial safety performance has been strong throughout the period. An investigation is being carried out after an event at the end of March whereby a 50v direct current (DC) essential supply system had been incorrectly isolated and did not work in line with the operating rules. This did not impact nuclear safety but was reported and is being investigated as good practice.

ONR Report – Mr Stuart Fannin

ONR has been very busy assessing and permissioning the safety cases as well as addressing the change in the refuelling process to reflect defueling regulations. Formal permission to commence defueling was given on 21 March 2022 and can be seen on ONR's website. Two electrical engineering inspections were carried out, which were graded green. ONR was disappointed that the 50v DC essential supply system was incorrectly isolated. The system supports alarms and indications to the Central Control Room and supports the remote control of plant within the Control Room. It is important that the Station continues to apply robust deconfiguration processes and ONR does not want to see contravention of licence conditions.

SEPA Report – Mr Keith Hammond

SEPA has been busy with meetings in preparation for the handover of the site to Magnox. Inspectors have been on site twice in respect of the two events involving the loss of control of oil. The event in February involved the loss of approx. 1300 litres of radioactively contaminated oil from a gas circulator settling tank and is still under investigation. The second event relates to a small ongoing non-radioactive leak of approx. 50 litres per quarter of fully biodegradable oil from an oil-filled transformer cable. The source of the leak is still being investigated.

Hunterston A Reports – Mr Mark Blackley

Covid arrangements on site have ended. Conventional safety performance has been good. There were no significant injuries during 2021/22 or radiological, nuclear safety or security events. A high-level inspection of stacks at 40-50mm and 10-15mm showed a small hole, discovered after filtration, before sampling. This made the stack discharge 0.3% higher but there is no tangible difference to the SEPA returns. 71 tons of ILW was removed from the final bunker. It is anticipated that the bunker will be empty by late summer. The Learning and Development Centre has been demolished. A new Effluent Treatment Plant has been installed and welfare facilities have been improved. 64 resource requests were filled. Key focus is on 4 new Health Physics Trainees who start in June and 2 Craft Apprentices.

ONR Report – Mr Stuart Fannin

Mr Fannin replaced Mr Kings as Hunterston A ONR Inspector from 5 April. Two control inspections under Licence Condition 11 and Licence Condition 17 and a fire inspection were graded green. Risk assessments and fire evacuation routes in the SILWE plant are being considered for active commissioning.

SEPA Report –

SEPA's report on Hunterston A was circulated with the meeting papers. Ms Hayes was not present at the meeting.

NDA Reports – Mr David Wallace

Ms Hogg has been seconded to Scottish Government as the result of stakeholder feedback. Magnox fuel reprocessing ends at Sellafield in July 2022. The GDF Siting Process is underway, with geophysical surveys (sonar surveys of deep rock) to begin in Cumbria. The Supply Chain Event (and Awards Ceremony) will take place on 21 July 2022 in Telford and is expected to be the largest event held. The NDA Stakeholder Summit will be in person in Edinburgh on 7/8 September. The Gender Pay Gap 2020/21 Report has been published and is available on the website.

Update from Scottish Government – Ms Diane Hamilton, Ms Laura Hogg

The next Scottish Nuclear Sites meeting will take place virtually on 23 August 2022 at 2.00pm. The Minister for Environment and Land Reform, Mairi McAllan MSP, is expected to be in attendance. A response to the review on the Radioactive Substances Common Framework is expected from the UK Government in summer 2022. The Scottish Higher Activity Waste workplan is being prepared.

There were many questions asked by members after each presentation, the detail of which can be read in the full Minute of the meeting, available from the Secretariat.

Next Meeting – Thursday 1 September 2022 at 1.30 pm, in person at The Waterside Hotel, East Kilbride.



**HUNTERSTON SITE STAKEHOLDER GROUP
MINUTES OF SIXTY FOURTH MEETING HELD ON
WEDNESDAY 1 JUNE 2022 AT 1.30 PM
THE WATERSIDE HOTEL, ARDROSSAN ROAD, WEST KILBRIDE, KA23 9NG**

Present

Magnox Ltd

Mr Mark Blackley (Site Director)
Mrs Jill Callander (SSG Secretariat)
Mr Sean Marshall (Magnox Communications)
Mr Reuben Phillips (Waste Manager, Hunterston A)
Mr Alistair Walker (Programme Delivery Manager)

EDF (Hunterston B)

Mr Joe Struthers (Station Director)

Community Council Representatives

Mr Jamie Black (Largs CC)
Mrs Rita Holmes – SSG Chair (Fairlie CC)
Mr John Lamb (West Kilbride CC)

SEPA

Mr Keith Hammond (Hunterston B)
Mr Paul Dale (Hunterston A)

North Ayrshire Council (NAC)

Cllr Ian Murdoch (North Coast)
Mr Stewart Mackenzie (Protective Services)

ONR

Mr Stuart Fannin (Hunterston B)

NDA

Mr David Wallace (Stakeholder Lead Scotland)

Scottish Government

Ms Diane Hamilton
Ms Laura Hogg

In Attendance

Ms Sheila Adams (Minutes)
Mr Graham Buckley (Member of Public)

Mr John Glover (Member of Public)
Mr Malcolm Milne (Member of Public)

Apologies

Ms Clare Bond (Committee on Radioactive Waste Management (CoRWM))
Mr Angus Cochran-Patrick (Hunterston Estate)
Cllr Todd Ferguson (North Coast)
Mr John McHenry (Cumbrae Community Council)
Ms Melanie Hayes (SEPA)
Ms Lesley Jeffery (Ayrshire Civil Contingencies Team)
Cllr Tom Marshall (North Coast)
Ms Jane McGeorge (Ayrshire Civil Contingencies Team)
Mr Stuart McGhie (SSG Vice Chair)
Mr Scott McKenzie (North Ayrshire Council, Protective Services)
Cllr Alan Hill (North Coast)

1. Chairman's Opening Remarks and Declarations of Interest

Mrs Holmes, Chair, welcomed everyone to the sixty fourth meeting of the Hunterston Site Stakeholder Group and was pleased to welcome everyone back in person. In particular, she welcomed Councillor Ian Murdoch to his first meeting as an Elected Member and welcomed back Cllr Alan Hill, who has previously served on the Site Stakeholder Group.

Cllr Tom Marshall and Cllr Todd Ferguson had sent apologies as they had other commitments, but Mrs Holmes congratulated them on being re-elected. She noted that North Ayrshire Council has selected the Elected Members representing the North Coast as the Council representatives on the Site Stakeholder Group and as there are five positions available, there is currently one vacancy. Mrs Holmes conveyed her thanks to previous Councillors on the Site Stakeholder Group – Robert Barr, Alex Gallagher and John Glover – particularly Mr Barr who had an exceptional attendance record at Site Stakeholder Group meetings and was supportive of both Stations.

Mrs Holmes read out the apologies as listed above. She welcomed Mr Paul Dale from SEPA, on behalf of Melanie Hayes, and Mr Stewart Mackenzie, North Ayrshire Council Protective Services, on behalf of Mr Scott McKenzie.

For the benefit of the new faces at the meeting, introductions were made around the table.

There were no declarations of interest.

2. Chair and Vice Chair Updates and Correspondence

Magnox SSG Chairs and Vice Chairs Meeting – 11 February 2022, 20 May 2022

Since the last meeting in March 2022, the Chair and Vice Chair have had monthly updates from Mr Blackley, Hunterston A Site Director. They visited Hunterston B Station on 12 May for an update from Mr Struthers, Site Director, and to view the upgraded defueling route. Mrs Holmes was pleased to have the opportunity to speak to staff about the improvements to the defueling route and the staff are so obviously enthusiastic and proud of the work. Hunterston B Station was thanked for its positive engagement with the Site Stakeholder Group and its high standard of liaison. Hunterston A site has led the way on this since 2006. It was hoped that Mr Wallace, NDA, Mr McGhie and Mrs Holmes would be able to visit the Garnock Community Hub before the end of June, which was rescheduled due to adverse weather conditions in March.

The Chairs and Vice Chairs meeting on 20 May was online. An update was given by Phil Matthews of NuLEAF (Nuclear Legacy Advisory Forum) with a Question and Answer session to better understand the relationship between the NDA and NuLEAF. Mr Bill Hamilton of Magnox updated on plans for Site Stakeholder Groups going forward. Draft Terms of Reference are currently out for discussion on a new NDA / NGO Forum to be set up. A BEIS / NGO Forum and an ONR / NGO Forum already exists.

3. Actions and Approval of Previous Minutes

The Minutes of the Site Stakeholder Group meeting, held on 3 March 2022, virtually on the Zoom platform, were proposed for approval by Mr John Lamb and seconded by Mr Jamie Black.

Update on Actions:

- Ms Adamson to report back on questions asked, not able to be answered at the meeting. Responses were received and circulated to members by email – discharged.
- Secretariat to write to Mr Kings conveying the thanks and best wishes of the Site Stakeholder Group – letter sent – discharged.
- Jill Callander to arrange an induction for new members following the elections in May for any new SSG members – Mrs Callander will set up a site meeting and induction for new members and circulate the date.

- Mr Wallace to chase up Hunterston B Station Closure Economic Report being produced by North Ayrshire Council – Mr Wallace updated that the report is almost complete but not yet available. He suggested that North Ayrshire Council is invited to the next meeting to present the findings.

Action – Secretariat to invite North Ayrshire Council to the September Site Stakeholder Group meeting to present the findings of the Hunterston B Station Closure Economic Report.

4. Hunterston B Station Reports

Hunterston B Report – Mr Joe Struthers

The report issued with the meeting papers was taken as read. The start of removal of spent fuel from the reactors was recognised as another milestone at Hunterston B. The focus has been on the statutory outage of Reactors 3 and 4 and the approval of the safety cases for defueling on 16 May 2022. Flask corridor improvement works have taken place over a six-month period of upgrade work. Updates have been made for safety and efficiencies. Mr Struthers was pleased to hear the positive feedback from the Chair. Covid is being managed on site, with restrictions reduced as per Government guidelines. Industrial safety performance has been strong throughout the period. An investigation is being carried out after an event at the end of March whereby a 50v direct current (DC) essential supply system had been incorrectly isolated and did not work in line with the operating rules. This did not impact nuclear safety but was reported and is being investigated as good practice.

ONR Report – Mr Stuart Fannin

The ONR report for January-March 2022 issued with the meeting papers was taken as read. Mr Fannin summarised key points. ONR has been very busy, spending a lot of time assessing and permissioning the safety cases as well as addressing the change in the refuelling process to reflect defueling regulations. The most significant difference and reason for the time delay is due to the key risk in defueling being returning the fuel plug unit, without a fuel stringer attached to it, back to the reactor. This has potential to cause significant damage. ONR is satisfied with the Station's control measures and consequence assessment. The formal permission to commence defueling was given on 21 March 2022 and this can be seen on ONR's website. Two electrical engineering inspections were carried out, which were graded green and ONR was satisfied with the isolation process. Mr Fannin confirmed that defueling formally started on 16 May 2022. He pointed out that although Reactor 3 is isolated and shut down, it is still subject to operational rules, so he was disappointed that the 50v DC essential supply system was incorrectly isolated. The system supports alarms and indications to the Central Control Room and supports the remote control of plant within the Control Room. It is important that the Station continues to apply robust deconfiguration processes and ONR does not want to see contravention of licence conditions.

SEPA Report – Mr Keith Hammond

The report issued in advance of the meeting was taken as read. Mr Hammond highlighted key points. SEPA has been busy with meetings in preparation for the handover of the site to Magnox. Inspectors have been on site twice and the two events are detailed in the report, both involving the loss of control of oil. The event in February, reported at the March meeting, involved the loss of approximately 1300 litres of radioactively contaminated oil from a gas circulator settling tank and is still under investigation. The second event relates to a small ongoing non-radioactive leak of approximately 50 litres per quarter of fully biodegradable oil from an oil-filled transformer cable. The source of the leak is still being investigated.

Members Question and Answer Session

Mr Lamb asked Mr Struthers about the defueling route and handling and craneage from the Reactors to the Ponds and if this was creating a bottleneck and if there was an alternative. Mr Struthers responded that there is just one fuelling machine, however a stock of fuel in the ponds creates a buffer, ensures continuous processing. Mr Lamb further asked how much buffer stock there was. Mr Struthers replied that this varies from week to week and month to month but is typically a few weeks' worth.

Mr Lamb asked about availability of flasks and if there was any guarantee of numbers. Mr Struthers advised that Hunterston B is being prioritised for flask availability and is working with Sellafield to build a relationship.

Mr Lamb referred to the oil leaks being investigated by SEPA and noted the redundancy within the system of the critical equipment shutdown. He asked if the transformer being off for any length of time affects progress. Mr Struthers advised this is not the case. The Station is working with the Contractor to identify the source of the leak. Repairs will be planned, and the transformer taken out of service to repair.

Mr Lamb asked about transporting the flasks to the rail head along the A78. Mr Struthers advised that the route is subject to approvals for transport and the Station will continue to work with the authorities.

Mr Lamb asked if permission to demolish the buildings on site was progressing. Mr Struthers confirmed that this is not the case and there is currently no demolition or construction planned on site. Existing buildings are being repurposed. The Station is not in a position to make decisions on demolition and construction, and it is not in the critical path.

Mr Lamb asked about progress on NDA / EDF. Mr Struthers confirmed that any transfer would be subject to regulatory approval.

Cllr Murdoch noted that the Station was doing what it could to find the source of the oil leak but asked about the potential for the leak to reach and contaminate a wider area. Mr Struthers reassured members that the leak is entirely within the middle of the site and relates to 50 litres/quarter of biodegradable oil, which is being closely monitored.

Mr Black asked ONR and SEPA how they could be sure that the leak would not get worse if the source of the leak was presently unknown. Mr Hammond explained that this was first noticed in August when an engineer considered the top up rates to be higher than expected. The line has been walked and opened up and looked at, but nothing has been found. The splitter box has also been examined with no trace of leak. A specialist contractor is now being brought in. Mr Hammond re-emphasised that the oil is biodegradable. Mr Black asked what the implications would be if the leak worsened, and the transformer had to come offline. Mr Struthers replied that Reactor 4 transformer is suitable for the whole site and the redundant transformers are a form of backup. He added that it is not normal for a leak to occur, and any leak is too much, but it is not unknown in the industry and unlikely to be catastrophic. The team has been briefed and is prepared.

Mr Black asked how the Station would ensure focus on retaining plant in good condition and not a big list of leaks. Mr Struthers confirmed that configuration control and maintenance regimes are the main focus at Hunterston B. He added that the Station has to maintain the plant in a safe state and has adequate spares and a planned maintenance schedule.

Mr Black asked how prepared Hunterston B is for the scenario of grid towers not being available. He noted that there is a big risk of unplanned outages and there could be a scenario when power is lost for days. Mr Struthers responded that the risk is reduced when shut down. The Station has backups and fuel stocks and liaises with the National Grid. The energy crisis is being closely watched and backup requirements are in place. Mr Fannin reminded members that the Reactors being shut down reduces the cooling requirements and therefore the risk. A “black start” is for operating sites and has been considered by ONR and EDF. Mr Black further asked if the Station was comfortable that it would be okay if there was no grid electricity available for six weeks. Mr Struthers confirmed this was the case and fuel would be prioritised, if necessary, over an extended period. Mr Black asked if ONR was confident that Hunterston B would not be at risk if there was no power, which Mr Fannin confirmed.

Cllr Murdoch asked if there was a contingency plan for maintaining fuel stocks and what would happen if there were no stocks available, as in Mr Black’s scenario. Mr Struthers advised that the Station had worked closely with BEIS to get what was needed for critical infrastructure in place. He added that BEIS is responsible for the Critical National Infrastructure – hospitals, nuclear, etc. Cllr Murdoch asked what would happen if there was no power for 12 months rather than six weeks. Mr Fannin confirmed that there is still a contingency plan.

Mr Buckley asked if there were additional issues to be addressed before the safety cases could be approved. Mr Fannin confirmed that ONR was satisfied that the hazard presented was not a significant risk and asked for further detailed analysis. Mr Buckley asked if that situation was not covered anyway. Mr Fannin explained that there is fuel string with a fuel plug on top. The string acts as a shock absorber if dropped. In defueling, there is no shock absorber. It took some time for EDF to demonstrate this case.

Mrs Holmes observed that the Site Directors have a great responsibility which is not made any easier by mistakes being made but it is inevitable in a place with complex systems. She noted that not one person knows everything there is to know but she is reassured by the good, highly trained and qualified staff, with the support of the regulators. She asked if Contractors could pose any problems and if they are subject to audit. Mr Fannin clarified that regulators expect the same standards whether carried out by a Contractor or employee. Contractors can be highly specialised and need to have the right oversight and risk assessments, method statements, etc. ONR is convinced that there are robust oversight processes in place. The ‘Big 6’ Contractors are treated the same as EDF employees. Mrs Holmes noted that the crux is getting the calibre of contractor person.

Mrs Holmes referred to the tritium leak in the outfall lagoon in February and asked where this is sited. Mr Struthers clarified that this is on the right-hand side if driving towards the site. Mrs Holmes asked if the pipe goes from the lagoon to sea water. Mr Struthers replied that it is a landward and seaward lagoon with two barriers before it reaches the sea. Mrs Holmes noted that the oil was dealt with and sent to the right place to be treated but asked if there was any residual. Mr Struthers confirmed that the Station is continuing to monitor this. Oil from the leak was removed, processed, packaged, analysed and sent for disposal through the normal routes. Mr Black asked when a conclusion is expected. Mr Hammond advised that SEPA has received the Station’s report and is considering this with the evidence gathered but he could not give a timescale for response. Mr Black was concerned that this should not have happened and there should be more pressure to learn fast as tritium is a nasty substance. Mr Hammond advised that the actual pipes that leaked have been moved above ground so they can be monitored more effectively, and a repeat of the event was considered unlikely. Mr Black asked if there had been digest summaries. Mr Hammond replied that there is an understanding of what caused the leak and the Station is taking action to correct this.

It is unlikely to occur again, but SEPA is considering the action to be taken as a result of this. Mr Black was of the opinion that SEPA appeared to be less diligent than ONR with no transparency and no timescales for reporting. Mr Hammond responded that SEPA needs to consider the appropriate enforcement action and he is unable to give details in a public forum which could influence the decision on enforcement action being taken. He added that organisational management arrangements are underway. Mr Black asked what would happen if the same thing happened again and saw enforcement as being for the regulators but there is a missing tier in the middle. Mrs Holmes commented that site visits can assist with the understanding of detail and offsite communications with Site Directors. Mr Dale added that details will be publicly available once the investigations are complete, but investigations cannot be compromised by putting information in the public domain at this stage. Remedial action can be taken by the site. Mr Black described his personal experience where he experienced a serious injury, from an accident similar to one which had happened previously. Mr Dale advised that SEPA's regulatory actions are available on its website. Previous incidents are taken into account and if the site has not learned lessons from these, the enforcement action increases. He reiterated that SEPA is unable to comment further until the process is complete. Mr Black added that he had not seen anything in previous Minutes to say that action had been taken and there would be no repeat of incidents. Mr Struthers assured members that highest level investigations are undertaken, previous incidents are looked at, findings are shared across the EDF fleet, and more training is implemented. He added that all pipework overground has been replaced and EDF had responded to the need to ensure that there would be no repeat of the incident, for which Mr Struthers is ultimately responsible.

Mrs Holmes referred to the concrete blocks on Peel Ports land and asked if there had been problems as she noted that the gate is now closed. Mr Struthers was unable to comment on Peel Ports issues.

Mrs Holmes noted that the Civil Nuclear Constabulary (CNC) was not present and would have liked to ask about the newspaper article on harassment that she was dismayed to read.

Mrs Holmes noted that the proposed consultation on the decommissioning of Hunterston B is scheduled for September. She recalled that there was a full and detailed consultation on Hunterston A site and expected to see the same from Hunterston B. She asked that the Site Stakeholder Group is kept informed at an early stage. She noted that ONR will be consulted and have sight of the EIADR Scoping Report in July and asked if this also applied to the community and Site Stakeholder Group. She noted the EIADR application is expected in Quarter 3 of 2023 and asked if the decision is solely ONR's or if North Ayrshire Council, SEPA and the community will have the opportunity to input. Mr Fannin responded that the pre-application opinion defines the level of consultation required. The Site Stakeholder Group will be consulted as an important stakeholder. Mrs Holmes found that consultations can sometimes be very bland with no detail and would like the Site Stakeholder Group to receive the technical detail. Cllr Murdoch added that the understanding and knowledge of the public should not be underestimated.

Mrs Holmes commented that since she joined the Site Stakeholder Group in 2006, she might have appeared to give the Site Directors a hard time in terms of questioning, but she was very impressed by the work and the running of both Stations.

Mr Lamb referred to North Ayrshire Council's Consequence Report on revised offsite regulations and asked if the existing regulations would remain in place until the end of defueling. Mr Struthers replied that the Station would work through the process and provide the technical detail to advise North Ayrshire Council. This is not a decision for EDF and the process is underway, with no conclusion reached yet. Mr Lamb asked if this was based purely on generation. Mr Struthers clarified that it is based on risk. There is still some risk as there is still fuel on site but the risk is reduced. The Station is going through the review at the current time and ONR is also involved.

Mr Lamb asked for updates to be given at future meetings. Mr Fannin added that REPPIR (Radiation ((Emergency Preparedness and Public Information) Regulations) has recently been updated and ONR will also take account of HECA (Hazard Evaluation Consequence Assessment) to ensure that the Report contains the right information and amount of detail. ONR will support the submission of the Consequence Report to North Ayrshire Council. There is no change to offsite emergency arrangements at this time. A more substantial change is likely to be the removal of potassium iodate tablets.

5. Hunterston A Site Reports

Hunterston A Reports – Mr Mark Blackley

The Hunterston A report issued with the meeting papers was taken as read. Mr Blackley highlighted the key points as being safety, delivery and people. Covid arrangements on site have ended. Conventional safety performance has been good. There were no significant injuries during 2021/22 or radiological, nuclear safety or security events. Mr Blackley described an environmental event where a small hole (approx. 40-50mm and 10-15mm), caused by corrosion, was discovered after the filtration but before the sampling system in a ventilation stack. This made the stack discharge 0.3% higher but there is no tangible difference to the SEPA returns. SEPA Inspectors will visit the site the following week. The site ended the financial year on a strong basis. Seventy-one tons of Intermediate Level Waste (ILW) was removed from the final bunker. It is anticipated that the bunker will be empty by late summer. The Learning and Development Centre has been demolished. A new Effluent Treatment Plant has been installed and welfare facilities have been improved. Sixty-four resource requests were filled, either internally, by recruitment or by conversion from external agencies to Magnox employees. A key focus is on four new Health Physics Trainees who start in June and two Craft Apprentices. This is particularly pleasing as there have been none for a number of years.

Members Question and Answer Session

Mr Black asked more about the hole being after the filtration system. Mr Blackley advised that it was as a result of corrosion and could have been anywhere. The stacks are inspected at ground level annually, but this was the first time they had been inspected from an elevated position. It is known that the hole was not there in 2018.

Mr Lamb referred to the demolition of the Learning and Development Centre and asked if the contamination was easy to clean up. Mr Blackley replied that this had not been done yet as the building was demolished first. Land quality experts are examining the land now to determine the best way forward.

Mr Lamb asked about the configuration of the new Effluent Treatment plant on site. Mr Blackley responded that this is for miscellaneous waste such as water from showers. New bowzers will transfer from different locations on site to the treatment plant.

Mr Lamb assumed that intermediate level waste retrieval from the ponds went by flasks to the ILW store. Mr Blackley replied that the ILW flask from the pond is used to load the waste into the bunkers and then the waste is processed through the SAWBR facility. We are not planning on using this flask again. Mr Phillips added that the metal from the flask will be recycled. Mr Lamb further asked if there had been concrete fines from the ponds. Mr Phillips advised that there was debris from fuel processing and the bunkers.

Mr Lamb asked if the cladding project was still progressing. Mr Blackley advised that this is on hold, pending a decision on the strategy for the site, which is currently care and maintenance. If the site carries on with the present care and maintenance programme, recladding will be necessary, but this might not be the case for continuous decommissioning. A decision on this is

anticipated in 12 months.

Mrs Holmes envisaged that holes in stacks will become more frequent as decommissioning progresses and more stacks are required. Mr Phillips advised that there will be discharges from the ILW store, from the Encapsulation Plant and from the Reactor buildings.

Mrs Holmes noted that Hunterston B will start decommissioning in the next three years and asked if there would be more discharge stacks and if the community would see more aerial discharge. Mr Hammond responded that this would depend on what Magnox and EDF decide to do. There are currently limits and generally a downward trend is seen in gaseous discharges. Mr Blackley replied that there will be additional stacks, but the discharges are very small and within authorisation limits. He added that discharges are much lower than would be expected from a generating station. Referring to the EIADR Scoping Report, Mrs Holmes asked if this would include aerial discharges and if Hunterston A and Hunterston B would be separate. Mr Blackley advised that there would be rebalancing of discharge between the different stacks.

Mrs Holmes asked if there were 27 column bases in total or if some had not required repair. Mr Blackley responded that these were the ones requiring remedial work.

Mrs Holmes noted that everyone was waiting to hear what the NDA decides is the way forward and whether the reactor buildings will be taken down. She asked if this decision would really be known within a year. Mr Blackley advised that the Business Case has gone through internal review. It needs to go through NDA processes and then to the UK Government. He has been briefed that it is anticipated that this will happen this summer, but it all depends on Government priorities. Mrs Holmes asked if the Scottish Government will be consulted on this. Ms Hamilton replied that stakeholder engagement is in the workstream, and she will advise further in due course.

Mr Lamb asked if Hunterston A and Magnox had come to an agreement on the higher activity waste in bunker one. Mr Blackley responded that the strategy document for all Magnox stations takes account of all requirements. Hunterston A is based on small item debris which it is assumed could not be separated. The Company-wide strategy document is being revisited. Once this has been agreed within the business, the NDA and Regulators will be consulted on dealing with the fuel elements, before going to Magnox Senior Strategy Group. When the Strategy is agreed, it would have to be implemented, with engagement with regulators, approval of any permissions required, modifications, etc. Mr Black asked what would happen if approval of the strategy takes longer than the anticipated completion of bunker one. Mr Blackley advised that the waste would be kept safe until the new strategy has been agreed.

Mr Black asked if there would be detailed consultation on the colour of the cladding, if required. Mr Blackley confirmed that this would be the case.

6. Update from Scottish Government – Ms Diane Hamilton, Ms Laura Hogg

The Scottish Government report, circulated with the meeting papers, was taken as read. Ms Hamilton confirmed that the next Scottish Nuclear Sites meeting will take place virtually on 23 August 2022 at 2.00pm. The Minister for Environment and Land Reform, Mairi McAllan MSP, is expected to be in attendance.

[Action - Any questions for discussion at the meeting should be sent to the Secretariat for collation and forwarding to the Scottish Government by 1 July 2022.](#)

A response to the review on the Radioactive Substances Common Framework is expected from

the UK Government in summer 2022.

The Scottish Higher Activity Waste workplan is being prepared. Laura Hogg has been seconded to the Scottish Government from NDA and Scottish Government is pleased to have Laura's technical expertise on board.

Ms Hogg confirmed that she had been seconded to Scottish Government for six months. She has worked in the industry for almost 20 years and been in almost every decommissioning site in the UK.

The Chair apologised for bypassing the Hunterston A Station ONR and SEPA reports on the agenda and returned to these.

ONR Report

Mr Fannin gave a brief summary of the ONR report prepared by Bill Kings before his retirement. Two control inspections under Licence Condition 11 and Licence Condition 17 were graded green – no formal action. A fire inspection was also rated green. Mr Fannin referred to the Solid Intermediate Level Waste Encapsulation (SILWE) plant and risk assessments and fire evacuation routes in the SILWE plant in active commissioning. Mr Kings was happy with the way that the site had managed Covid arrangements, which were gradually relaxed and now back to normal working practices. Mr Fannin confirmed that he had taken over as ONR Inspector for Hunterston A on 5 April 2022. The main reason for agreeing to take both Hunterston A and B sites is the Government decision to transfer Hunterston B Station to Magnox. It is still to be determined if Hunterston will become a single or double licenced site. There is a lot of synergy between the two sites and Mr Fannin will work closely with Mr Alistair Walker, Advanced Gas-cooled Reactors (AGR) Programme Delivery Manager for Magnox.

SEPA Report –

SEPA's report on Hunterston A was circulated with the meeting papers. Ms Hayes was not present at the meeting, but Mr Hammond offered to take back any questions.

7. NDA Reports – Mr David Wallace

Mr Wallace confirmed that the secondment of Ms Hogg to Scottish Government was the result of stakeholder feedback, demonstrating NDA's commitment to enhancing relationships and resources with Scottish Government, regulators, etc. The NDA's role is that of technical advice and guidance so it appropriate that Ms Hogg should be seconded and is an example of closer working and helping to inform policy. This will be reviewed in six months. Mr Wallace reiterated that the NDA does listen and finds it useful to hear the views of Site Stakeholder Groups and was keen to report back on progress.

Coming out of Covid, there is no longer an expectation from Government to be in the office 5 days per week and a flexible, hybrid approach to working is expected, with 2/3 days a week in the office. The NDA's Sustainability Strategy was published in March and is available on the website. Magnox fuel reprocessing ends at Sellafield in July 2022, ending an operational journey that began in 1964. 55,000 tons of spent fuel has been processed. The Geological Disposal Facility (GDF) Siting Process is underway, with geophysical surveys (sonar surveys of deep rock) to begin in Cumbria. The Supply Chain Event will take place on 21 July 2022 in Telford, which is expected to be the largest ever with over 300 suppliers and 1,700 visitors. The Awards Ceremony will take place the same day. The NDA Stakeholder Summit will be in person in Edinburgh on 7/8 September. The agenda is being prepared and a Scottish Government Minister will give the keynote speech. There will be panel discussions instead of workshops to allow for full involvement with stakeholders.

The Gender Pay Gap 2020/21 Report has been published and is available on the website. The NDA is doing its best to reduce the pay gap and is still looking for improvement as it is important to attract and retain a diverse workforce.

Members Question and Answer Session

Mr Black asked how the relationship between NDA and Magnox would be monitored. He had read the AGR Operating Policy Report and asked if there was any update on this. Mr Wallace replied that the National Audit Office report sees BEIS, NDA and Magnox working together. The National Audit Office is looking at the value for money aspect in how the organisations work together. The main thrust is closer working with Magnox and EDF through a process with an integrated team put together. The NDA is not intending to wait three years and wants to see a seamless transfer. Mr Black pointed out that this should not just relate to safety but should also have community input. Mr Wallace advised that Mr Walker is part of the Future Missions Team. An updated report is being prepared on how the partnership is working together instead of individual feedback. Mr Walker added that EDF generated key metrics and learning is being developed to bring similar into the AGR programme. Mr Lamb asked the Scottish Government's view on this and noted the importance of keeping pushing forward from a community aspect. Mr Wallace responded that the future is exciting in Scotland, with Scotland being very important for decommissioning with Hunterston B, Vulcan Dounreay and Torness. He stressed that decommissioning is not the end but the beginning and there is an opportunity for this area to be a lead and share learning with the rest of the estate and globally. This also relates to socio economics and the skills agenda. Ms Hamilton added that an Energy Strategy refresh is in the pipeline and being considered. Mr Fannin added that while he fully understood the NDA consulting with stakeholders, it needed to include the regulators in this consultation and the ONR is not happy with the current level of engagement. Mr Fannin clarified that ONR is an independent regulator, which operates without fear or favour.

Mr Black asked how the ONR knew that it was working. Mr Dale explained the full scope of the regulations for regulators. Mr Black asked how the public knew that it was working well. Mrs Holmes thought that perhaps lack of progress would be an indicator.

Mrs Holmes noted that Hunterston A, Hunterston B and Torness will be subject to 'near site near surface' disposal of higher activity waste. The NDA's wish to have a store at Hunterston for central and southern Scotland was rejected. Trust has been built up between the NDA and Stations so far but now the NDA is a huge Company and Hunterston is in a vulnerable area. Hunterston is glad of the jobs but does not want to host other stations' waste. Cllr Murdoch asked why this decision would be revisited if it had already been made. This would bring into question public confidence in the integrity of this forum. Mrs Holmes noted that Scottish Government is not involved in the GDF discussions in Cumbria and asked if Scottish Government has a say. Ms Hamilton advised that Scottish Government meets monthly with Radioactive Waste Management Ltd and Marine Scotland. Scottish Government is not involved in the decision making but is being briefed and kept informed.

8. Any Other Business

There were no other items of business raised.

9. Next Meeting – Thursday 1 September 2022

The Chair thanked everyone for turning up in person and was pleased to see people again face to



face. She brought the meeting to a close at 3.21 pm.

Site Stakeholder Group

Hunterston B Station Director's Report

Period: May 2022 to July 2022

1. Defueling, transfer and deconstruction

As outlined in the last SSG report, active defueling is now underway with a new working rhythm being developed on the removal of spent fuel stringers. Defueling activities at the site are progressing well and the focus is on progressing the operational defueling campaign on Reactor 3 in a safe, reliable and efficient manner.

In parallel with operational defueling on Reactor 3, the pre-defueling outage on Reactor 4 is progressing in line with station plans.

Over the next few years, EDF will be working closely with the Nuclear Decommissioning Authority and Magnox to develop proposals for decommissioning. Decommissioning will involve dismantling and demolition of plant and buildings on the Hunterston B site. EDF is holding a public consultation from 8 August to 19 September 2022, seeking the public's views to help inform the decommissioning proposals. As well as an online virtual exhibition people are being offered the opportunity to feedback views at a series of public events.

We have established a Transfer and Deconstruction Preparation Organisation on site. The team will continue the early Deconstruction preparations, including planning and consent, whilst also developing a Site Transition plan that will move the site from operational defueling to deconstruction.

2. Safety and Environment

Pandemic Response arrangements in response to COVID-19

EDF's sites have a six-stage tiered approach which is based on the Covid-19 infection rate on site and in the surrounding local area, with 0 being the lowest risk and 5 the highest. Each of the risk levels has a suite of actions in place to help protect the site.

The risk status of our site is monitored daily by the Outbreak Management Team (OMT), which includes our company doctors.

On Monday 9 May, following consultation with the Fleet Incident Management Team, Hunterston B moved from Risk Rating 1 to Risk Rating 0.

The station is continuously reviewing these arrangements in the event escalation is required.

Station Industrial Safety Performance

Safety performance during the reporting period has been good and our Total Recordable Incident Rate (TRIR) sits at 0.

Team Monthly safety meetings continue to be a success with topics including PPE (Personal Protective Equipment), outage safety refresh and risk assessment generating good discussion.

Industrial Safety Engineers have been busy completing confined spaces & testing of pressure systems, vessels and pipework compliance evaluations in line with the fleet programme.

In May, we welcomed a safety assist team to Hunterston B which consisted of a team of eight people including representatives from EDF Renewables, Customers, Corporate and contract partners. The assist was interactive, focusing on "walk and talk" with high level of engagement with safety representatives and a wide cross section of staff and contract partner groups.

There were many positive observations made, the team were particularly impressed with:

- Generator Transformer project CDM standards
- Industrial Safety Action Team content and engagement
- Fleet leading building fabric improvement programme
- The passion to succeed demonstrated at the Station

Our building and fabric group continue to meet on a fortnightly basis to ensure that improvements to buildings are being carried out in a timely manner.

The outage safety team have carried out various walk downs and have a regular visible presence on site, they also provide advice and support to EDF / contract partners on all matters relating to health & safety. There is also an opportunity for the management team to join in these walks to engage with contract partners and EDF staff while carrying out jobs at the work site.

The regulator, the ONR, has had positive discussions with the Quality Management Group Head and the Maintenance Manager on the progress we continue to make on machine guards and asbestos improvement plans. The ONR are due to re-visit site in December for their annual site visit.

In July, a safety document was marked complete without a section of pipework being reconnected on the Reactor 4 Main Gas Relief Valves. The work was associated with the pre-defueling outage and the failure to reconnect the pipework as part of the safety document work scope was identified during de-isolation and plant alignment checks by the Operations team.

While there were no actual safety consequences, it was categorised as a safety rules event as the safety document was closed without all work being completed. A full investigation has taken place to understand the causes and place actions to take the learning. Work was subsequently completed successfully to reconnect the pipework before progressing with the plant alignment.

Radiological Protection

The radiation dose of each worker is assessed individually by an electronic personal dose meter. A computer database keeps records for each worker. Exposure is continuously, monitored and ultimately compared with the levels specified in the Ionising Radiations Regulations (2017) which are the UK Health and Safety legislation that applies to work with radiation.

During the reporting period the Collective Radiation Exposure (CRE) was below plan (see table below). Collective doses are pre-planned for each year based on scheduled maintenance, outages and routine operations. A breakdown of dose received is shown below (along with a comparison of relevant dose statistics).

All work is fully reviewed and justified in order to ensure all doses received were ALARP (As Low As Reasonably Practicable). This involves justifying and optimising the dose, as well as remaining within those dose limits.

Differences between the actual and planned dose can be down to a range of factors including changes to the work programme, development of new techniques for carrying out work that will result in a lower dose and the deployment of new equipment. In this case, the reduced work programme resulted in the actual dose being lower than the predicted.

There were no reportable radiological protection events during this reporting period.

Radiation Dose to workers (February 2022 - April 2022)	
Planned collective dose	9.5man.mSv

Actual collective dose	.3man.mSv	
	Employee	Contract Partner
Total Dose	4.80man.mSv	2.50man.mSv
Average individual dose	0.01mSv	0.01mSv
Highest individual dose	0.44mSv	0.72mSv
Individuals	351	324

Chest X-ray	Transatlantic Flight	CT scan	Average UK annual dose to public	EDF Energy Dose Restriction Level	UK legal dose limit for radiation workers
0.014mSv	0.08mSv	2.0mSv	2.6mSv	10mSv	20mSv

Explanatory notes:

- mSv: milliSieverts (SI unit of dose received by an individual)
- man.mSv: The collective dose for a group of workers (i.e. the total of the doses received by each member of a group).

Environmental Safety

There have been no significant environmental events in the period May 2022 to July 2022.

Work is in progress to repair a slow, low-level leak of oil from a transformer cable. The oil, which is used for insulation in the cable, is light, clear and fully biodegradable. The cable has been taken out of service to allow the identification of the leak site and a repair is planned once the leak site has been identified. SEPA have been kept fully informed and have been very supportive.

Radioactive gaseous and aqueous discharges arising from normal plant operations remain at levels well below those authorised by SEPA.

The programme of off-site environmental monitoring and radiation surveys in the district has continued throughout the period and demonstrates that the radiological discharges from the station have a negligible impact on the local environment. Reports are provided monthly and quarterly to SEPA, detailing the samples and results of analysis performed.

Work to process and package solid low level wastes has continued in the period as part of normal operations and consignments have been made to our regular partners.

Emergency Arrangements

There have been no issues with the emergency arrangements during this reporting period. Hunterston B continues to work closely with Fleet Emergency Preparedness Group as the lead defueling site. As a group, we have been working on developing defueling scenarios and fault events that will exercise our Emergency Arrangements.

During the reporting period we completed two demonstration exercises with oversight from the ONR on areas of site security and fault scenarios. This included the first exercise to be run on a defueling site which provided a positive learning experience. We now continue to work with the ONR to demonstrate how we have embedded this learning and addressed areas for improvement. We are also sharing this learning with the rest of the fleet as part of our 'lead and learn' responsibilities.

We have commenced our planned 2022 shift exercise season to allow existing role holders and trainees to exercise their roles in defueling based scenarios.

Fleet Emergency Preparedness staff are liaising with external stakeholders on changes to the emergency arrangements based upon Hunterston B's move into defueling. Our updated hazard evaluation has been approved by the ONR and the Consequences Report has been provided to the local authority.

3. People

In June, Origen Financial Services ran a day Pre-Retirement Seminar with two of Origen's specialist 'Planning for Retirement' advisers providing the presentations and supported by Clive Pothecary (Pension Liaison Manager) and Lindsay McDonald (Redeployment Consultant). Origen is a leading adviser firm in the UK, providing presentations and seminars covering all areas of financial planning for the employees of major employers. Those who attended learnt about the key areas for consideration from both a financial planning side, pre and post retirement and also from a 'life after retirement' perspective.

There have been some management team changes due to Andy Dalling becoming the Transfer and Deconstruction Preparation Manager. James Purss has been successfully appointed to the Engineering and PI Manager position. James was previously an Engineering Group Head at Hunterston, and spent a period as Acting Engineering Manager before taking up a fleet role a few years ago. James has returned to Hunterston and completed a handover with Andy Dalling and has been in position from July.

4. Company Update

Hunterston B power station honoured for contribution to energy security

Hunterston B, and all those who have worked there, has been recognised for its contribution to Scotland's energy landscape.

The North Ayrshire site won the "Exceptional Contribution to the Energy Security" at the Scottish Engineering Awards in Glasgow.

Over the course of its 46 year generating life, Hunterston B produced enough zero-carbon electricity to power every home in Scotland for 31 years and avoided more than 100m tonnes of carbon dioxide from entering the atmosphere.



Station Director, Joe Struthers picked up the award on behalf of the station and said, "On behalf of everyone associated with Hunterston B, past and present, I am proud to accept this award. We are honoured to be recognised by Scottish Engineering for our contribution to energy security."

"The end of generation at Hunterston B was tinged with sadness for many of us, but it also provided a great opportunity for us to respect the past and reflect

on our exceptional achievements during 46 years of safe and reliable generation. Looking

forward, we are embracing the future, and our fantastic people have already started work on our next mission, safely refuelling the reactors, and dispatching flasks to Sellafield.”

The Scottish Engineering awards were launched nearly 30 years ago to celebrate the best home-grown Scottish talent and to shine a spotlight on inspiring individuals and exceptional organisations, which have displayed the highest level of excellence within the engineering and manufacturing sectors.

Hunterston B power station marks Queen’s Platinum Jubilee

An oak tree has been planted next to Hunterston B Power Station to mark the Queen’s Platinum Jubilee.

The sessile oak sapling was planted as part of the Queen’s Green Canopy celebration.

The initiative was created to mark Her Majesty’s Platinum Jubilee in 2022 and invites people from across the United Kingdom to ‘Plant a Tree for the Jubilee’.

Hunterston B’s Station Director, Joe Struthers, said: “Oak trees, when mature, provide habitat for a vast array of wildlife. Oaks are also thought to support more life than any other native tree in the UK.

“When we heard about the Queen’s Green Canopy initiative we wanted to be involved and do our bit as a station to mark the anniversary.”

EDF is planting one tree at each site across the fleet to mark this special occasion and to benefit nature for decades to come.

The Queen’s Green Canopy initiative will dedicate a network of 70 Ancient Woodlands and 70 trees across the United Kingdom to mark Her Majesty’s 70 years of dedicated service.

Hunterston B makes £10k end of generation donation to charities

Two Ayrshire-based charities have benefited from Hunterston B’s end of generation milestone.

North Ayrshire Foodbank and Crosshouse Children’s Fund received £2,000 each following a charity prize draw arranged to mark the station’s 46 years of operation.

The station stopped operating for the final time in January after producing enough zero carbon electricity to power every home in Scotland for 31 years.

As part of the end of generation events staff were entered into a lucky draw with a difference. Rather than the usual prizes, one name was randomly selected each day for a week and the member of staff was invited to choose a charity to receive a £2,000 donation.

In total, £10,000 has been gifted to charities. John Bell selected North Ayrshire Foodbank; John Miller asked for his donation to go to Alzheimer Scotland – Action on Dementia; David McLelland chose Macmillan Cancer Support; Omar Al-Omari donated to The Children’s Air Ambulance and Mark McNaughton gifted the money to Crosshouse Children’s Fund.

Station Director, Joe Struthers said: “The end of generation was an important milestone for people at the site. On the day, staff were able to watch the reactor coming offline and lunch was laid on but we also wanted to do something that looked beyond the boundary fence.

“We know lots of charities have struggled over the past couple of years due to Covid-19 impacting fundraising activities so we thought this would be a fitting way to support some of our local charities while marking our event.”

Craig Crosthwaite from the North Ayrshire Foodbank said: “We would like to thank John for honouring the work we do getting food to struggling households by nominating the foodbank.

“The average cost of a food-box is £12 so this money will equate to 166 parcels. The people of North Ayrshire have been incredibly supportive over our 10 years of service and we thank Hunterston B for being part of the caring and compassionate community ensuring no household goes without food.”

The site also held a gate collection to raise money for the Disasters Emergency Committee appeal for Ukraine. Generous staff donated £2,900, which will go towards supporting humanitarian efforts during the conflict.

A new dawn as Hinkley Point B ends generation

After more than 46 years generating home grown zero-carbon electricity, Somerset powerhouse Hinkley Point B has today switched off its second reactor.



The station first produced power when Abba’s Mamma Mia was at the top of the charts in 1976. Today it ends its run as the most productive nuclear power station the country has ever had.

Mike Davies, Station Director of Hinkley Point B, said: “This is a day of mixed emotions for all of us. We are justifiably proud of everything this station and its workforce have given to Somerset, and indeed the country, over decades of

operations. The huge amount of electricity we’ve produced could have met the needs of every home in the South West for 33 years.

“There is much to be proud of. This tiny corner of Somerset has produced huge amounts of zero-carbon electricity, supported and enriched our community and helped sustain the South West nuclear sector by providing thousands well-paid, high skilled jobs to our community.

“Now our attention turns to the job of defueling the power station.”

Over the coming weeks and months, teams at Hinkley Point B will undertake major maintenance and improvement projects across the plant to get it ready for the next stage of its life, defueling. This process, expected to last around three to four years, involves removing the remaining nuclear fuel from the reactors and transporting it to Sellafield for storage.

Once that work is complete EDF will hand the station to the Nuclear Decommissioning Authority for the next step of its life, decommissioning.

Major milestone as Government grants Development Consent Order to Sizewell C

Sizewell C has moved a step closer to starting construction after the Government today gave planning consent for the new power station in Suffolk.

The DCO application was submitted in May 2020 and sets out the range of measures the project will take to mitigate the effects of construction and maximise the benefits for local communities. More than one thousand interested parties and statutory consultees gave evidence during the public examination which ran from April to October last year.

Today's decision is the biggest milestone so far in the approval process for Sizewell C. It follows four rounds of public consultation which began in 2012 and involved more than 10,000 East Suffolk residents.

Carly Vince, Sizewell C's Chief Planning Officer, said: "I am delighted that, after months of careful consideration, the Government has given planning consent for Sizewell C. It is a big endorsement of our proposals and supports our view that this is the right project in the right place.

"I would like to thank the thousands of people in East Suffolk who contributed to our consultation sessions and the public examination. The input of residents, local authorities, environmental groups and many others has helped us to improve our plans. We will continue to work closely with them to make sure we minimise the impacts of construction and maximise the huge opportunities for the area.

"Sizewell C will be good for the region, creating thousands of opportunities for local people and businesses. It will boost local biodiversity and leave a legacy Suffolk can be proud of."

Sizewell C is set to become one of the UK's biggest net zero infrastructure projects, supplying reliable low carbon electricity to around six million homes. By displacing fossil fuel electricity, it will avoid around 9 million tonnes of CO2 emissions a year.

Negotiations with the Government on raising funds for the project are continuing and a Financial Investment Decision is expected in 2023. Last month, the Government announced that Sizewell C could be eligible for funding using the so-called Regulated Asset Base (RAB) scheme which will drive down the cost of the project to consumers.

Julia Pyke, Sizewell C's Financing Director, said: "Energy costs will be lower with nuclear in the mix, so today's decision is good news for bill-payers. The tried and tested funding arrangement we are proposing means that, by paying a small amount during construction, consumers will benefit in the long-term.

"Sizewell C will give a big boost to jobs and skills in nuclear supply chain companies across the country. It will strengthen the UK's energy security and play a key role in our fight against climate change.

"Planning approval brings us closer to delivering the huge benefits of this project to Suffolk and to the UK."

Other approvals required before the project can begin construction include a Nuclear Site Licence from the Office for Nuclear Regulation and permits from the Environment Agency.

For more information about anything in this report or other station issues, contact:

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Office for Nuclear Regulation (ONR)

Site Report for Hunterston B

Report for period 1 April – 30 June 2022

Foreword

This report is issued as part of ONR's commitment to make information about inspection and regulatory activities relating to the above site available to the public. Reports are distributed to members for the Hunterston Site Stakeholder Group and are also available on the ONR website (<http://www.onr.org.uk/llc/>).

Site inspectors from ONR usually attend Hunterston Site Stakeholder Group meetings where these reports are presented and will respond to any questions raised there. Any person wishing to inquire about matters covered by this report should contact ONR.

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1. Inspections

1.1. Dates of Inspection

The ONR site inspectors and specialist inspectors made inspections at the Hunterston B (HNB) site on the following dates during the report period 1 April – 30 June 2022:

- 3 May 2022
- 18 – 19 May 2022
- 25 May 2022
- 1 June 2022
- 14 – 16 June 2022
- 28 June 2022

2. Routine Matters

2.1. Inspections

Inspections are undertaken as part of the process for monitoring compliance with:

- the conditions attached by ONR to the nuclear site licence granted under the Nuclear Installations Act 1965 (NIA65) (as amended);
- the Energy Act 2013
- the Health and Safety at Work etc Act 1974 (HSWA74); and
- regulations made under HSWA74, for example the Ionising Radiations Regulations 2017 (IRR17) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).
- The Fire (Scotland) Act 2005;
- The Nuclear Industries Security Regulations (NISR) 2003;
- The Nuclear Safeguards (EU Exit) Regulations 2019 (NSR19).

The inspections entail monitoring the licensee's actions on the site in relation to incidents, operations, maintenance, projects, modifications, safety case changes and any other matters that may affect safety. The licensee is required to make and implement adequate arrangements under the conditions attached to the licence in order to ensure legal compliance. Inspections seek to judge both the adequacy of these arrangements and their implementation.

In this period, routine inspections of HNB covered the following:



- LC 22 - Modification or experiment on existing plant;
- Security – Regulator evaluated demonstration exercise;
- LC 11 - Emergency arrangements – demonstration exercise;
- LC 34 - Leakage and escape of radioactive material and radioactive waste;
- IRR17;

For the LC Inspections the site inspector and specialists judged that the arrangements made and implemented by the site in response to safety requirements were adequate. Specialist electrical engineering inspectors confirmed the effectiveness of the control rods and pressure vessel cooling water system isolations. The site inspector confirmed that a rigorous approach is being applied to the process to isolate and reduce the hazard from operational plant that is being retired from service as it no longer supports reactor safety or is required for defuelling operations. The security site inspector evaluated exercise Clyde and rated the demonstration as not adequate under NISR. Some improvements are in progress and a re-demonstration exercise has been planned. The site safety inspector evaluated exercise Vulture, which was the annual LC11 demonstration exercise. Whilst several aspects of the emergency response went well, the exercise was rated as not adequate. The station did not fully confirm the nuclear safety status of the fuel route plant and the time to recover and treat some casualties was excessive. A commitment to re-demonstrate the station emergency arrangements has been made. A specialist radiological protection inspector inspected compliance against LC34 and IRR17 with a focus on the fuel route. The inspection did not reveal any significant nuclear safety concerns and a rating of green (no formal action) was assigned for the inspection.

Members of the public, who would like further information on ONR's inspection activities during the reporting period, can view site Intervention Reports at www.onr.org.uk/intervention-records on our website www.onr.org.uk. Should you have any queries regarding our inspection activities, please email contact@onr.gov.uk.

2.2. Other Work

The site inspector held periodic meetings with safety representatives and the EDF internal regulation team, to support their function of representing employees and receiving information on matters affecting their health, safety and welfare at work and to provide internal challenge on nuclear safety matters.

3. Non-Routine Matters

Licensees are required to have arrangements to respond to non-routine matters and events. ONR inspectors judge the adequacy of the licensee's response, including actions taken to implement any necessary improvements.



Licence Condition (LC) 7 requires licensees to make and implement adequate arrangements for the notification, recording, investigation and reporting of incidents occurring on the site. During this period, the site inspector reviewed incidents that met the criteria for routine reporting to ONR. The site and specialist inspectors also sampled the station's follow up reports and corrective actions. From the evidence sampled, the inspector was satisfied that the events reported during the period, had been adequately investigated and appropriate event recovery actions identified. Matters and events of particular note during the period were:

- On 14 April 2022, it was reported that the in-service inspection (ISI) safety case, which justified the removal of some post operational inspection requirements on a number of reactor pressure boundary components, was inconsistent with the Defuelling safety case assumptions. The Safety Case Anomaly Process (SCAP) was applied which has confirmed that the current safety case position was secure. As this was a repeat event, where inconsistencies have been identified between the ISI and Defuelling safety cases, a commitment has been made to conduct an Apparent Cause Investigation (ACIN) to discover the extent of condition and establish the lessons learned. No members of the public or workers were placed at increased risk from this event.
- On 6 May 2022, during a routine test run of a dump condenser extract pump, flames from the pump motor were reported by an operator and the installed pump protection system tripped the motor which extinguished the fire. The event was automatically reported to the control room and fire extinguishers were used to cool the pump and eliminate further smouldering. Scottish Fire and Rescue Service attended site and confirmed no fire was present. The site inspector confirmed that the fire response procedures were followed appropriately and all persons were accounted for. As this is a repeat event, a forensic strip down of the pump was performed which will inform the investigation of the event. No members of the public or workers were placed at increased risk from this event.
- On 6 June 2022, when transferring an empty fuel transport skip from a flask within the fuel storage pond, the skip manipulator did not stop as expected and collided with an adjacent empty skip. The event was due to a limit switch failing to operate. The site inspector has followed up on this event; an equipment failure investigation has been carried out and enhancements to the skip manipulator inspection and testing procedures are planned along with a plan to recover the displaced empty skips. No members of the public or workers were placed at increased risk from this event and defuelling operations have not been unaffected.
- On 16 June 2022, it was reported that a maintenance inspection to carry out functional checks of overload and underload protection switches on the charge machine hoist had not been carried out as scheduled. The checks are completed prior to commencement of each defuelling batch, of 20 fuel channels, and have a validity period of 35 days. Due to some delays to the defuelling programme the 35-day period was exceeded.



The site inspector has followed up on this event. The station and fuel route design authority were satisfied that all subsequent tests of the switches were within tolerance and there was no compromise to the safety function of the charge machine hoist. The causes of the event are being investigated and the plant maintenance schedule has been updated. No members of the public or workers were placed at increased risk from this event.

- On 25 June 2022, work was being carried out on a ventilation system that discharges CO₂ from the gas circulators to the main gas relief stacks. The work was being carried out as part of the Reactor 4 defuelling outage. Following completion of the invasive works and close out of the safety document, it was identified that a flange had not been re-connected. If a subsequent alignment check had not identified the fault, it could have resulted in the gas circulators pumping contaminated CO₂ directly into the Reactor 4 Circulator Hall. Appropriate immediate actions have been taken to re-apply the isolations and an extent of condition survey has been carried out and no further anomalies were identified. The event has been categorised as a significant safety rules contravention and a significant adverse condition investigation is in progress. No members of the public or workers were placed at increased risk from this event and the site inspector intends to review the investigation findings once station has completed its investigation.

4. Regulatory Activity

ONR may issue formal documents to ensure compliance with regulatory requirements. Under nuclear site licence conditions, ONR issues regulatory documents, which either permit an activity or require some form of action to be taken; these are usually collectively termed 'Licence Instruments' (LIs) but can take other forms. In addition, inspectors may take a range of enforcement actions including issuing an Enforcement Notice.

- No LIs, Enforcement Notices or Enforcement letters were issued during this period.

Reports detailing previous regulatory decisions can be found on the ONR website at <http://www.onr.org.uk/pars/>.

5. News from ONR

For the latest news and information from the Office for Nuclear Regulation, please read and subscribe to our regular email newsletter 'ONR News' at www.onr.org.uk/onrnews

6. Contacts

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Published 08/22

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Hunterston Site Stakeholder Group

SEPA Update- Hunterston B

1 September 2022

Chief Executive's Post

SEPA announced the appointment of Nicole Paterson as its next Chief Executive on 7 July 2022.

Nicole, who joins the agency in October, is an award-winning local government Chief Officer, with nearly thirty-years' experience across five local authorities, consultancy, and environmental non-executive roles; leading operational, regulatory and strategic environmental services.

With more than twenty-five-years' experience in local government specifically, Ms. Paterson joins from North Lanarkshire Council, Scotland's fourth largest local authority, where her role as Head of Environmental Assets saw her drive a strategic vision of community focused, inclusive growth and prosperity. She led systemic change on climate change adaption, biodiversity, flood risk management, transport policy, planning and green spaces.

The appointment followed an open recruitment process which attracted a broad and diverse range of applications from across Scotland, the UK and Europe.

Cyber-Attack

On 24 December 2020, we were subject to a serious and complex cyber-attack, displaying significant stealth and malicious sophistication, which significantly impacted our organisation, our staff, our public and private partners, and the communities who rely on our services.

Since the attack, we have worked with Scottish Government, Police Scotland, the National Cyber Security Centre (NCSC) and the Scottish Business Resilience Centre (SBRC), to a clear recovery strategy.

Throughout our response and recovery activities, we published a weekly service status, detailing progress on our affected systems and services. We'll continue to update our service status on a weekly basis so that we're clear on what those we work with can expect and how we'll prioritise progress.

Regulation

Environmental Authorisations (Scotland) Regulations 2018 (EASR)- radioactive substances

We have continued telephone communication with the station throughout the period, including formal weekly call-downs with the station's Environmental Safety Group and corporate

Generation Environment Management as well as monthly updates from the EDF internal regulator on site. We have also attended routine meetings with corporate EDF, Magnox, ONR and EA on strategic issues, including defueling and decommissioning.

Site Inspection

We have visited the station once since the last SSG meeting. On 28 June 2022, SEPA staff carried out an inspection to follow up on progress with both the radioactive and non-radioactive oil loss events as well as a number of on-going projects. No new contraventions were identified.

We intend to carry out an inspection on 23 August 2022 to focus on corrective actions taken by the station in response to the radioactive oil loss event in February 2022 and station-based deconstruction activities. A verbal report of the outcome will be provided at the meeting.

Applications

The station applied in July 2020 to regularise the receipt of radioactive waste in the form of debris in the incoming fuel transport flasks. SEPA has determined the application and we have granted the application subject to conditions. The Notice of Variation was issued on 29 July 2022.

Pollution Prevention and Control (PPC)

We have been investigating and assessing the leak from an oil-filled cable onsite- see below. Otherwise, there have been no issues relating to the station's PPC permit for its non-radioactive emissions from the emergency diesel generators, auxiliary boilers and waste oil burner since the last scheduled SSG meeting.

Control of Major Accidents and Hazards (COMAH)

There have been no issues related to COMAH since the last scheduled SSG meeting.

Controlled Activities Regulations (CAR)

There have been no other issues relating to the stations' non-radioactive liquid discharges to the water environment since the last scheduled SSG meeting.

UK Emissions Trading Scheme (ETS)

There have been no issues relating to the ETS since the last scheduled SSG meeting.

Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations (EIADR)

SEPA is a statutory consultee for the above regulations. We have received the Scoping Report in relation to the decommissioning of Hunterston B from the Office for Nuclear Regulation and will return our comments for the deadline of 5 September 2022.

Environmental Events

There were no reportable incidents, complaints or non-compliance events affecting SEPA's interests at either site known to have occurred since the last meeting of the SSG at the time of writing this report.

We previously reported two environmental events on site, both of which involve the loss of control of oil:

1. In February, the station lost control of approximately 1300 litres of radioactively contaminated oil from a gas circulator settling tank. The oil is lightly contaminated with tritium. The oil appears to have been captured at the lagoons at the 39-inch outfall and did not enter the environment. The recovered waste oil/water mixture has been allowed to separate, with the water fraction being disposed of through the AETP and the oil being transferred to an authorised incinerator. We have concluded our investigation and have issued the station with a Final Warning Letter on 22 June 2022.
2. EDF have made SEPA aware of a small, ongoing non-radioactive oil leak from an oil-filled transformer cable. The leak constitutes about 50 litres per quarter of fully biodegradable oil which has a half-life of around 15 days in soil. There is no reason at present to assume a significant environmental impact. The station has undertaken monitoring of the cable using tracers. We are in discussions with the station regarding locating the oil leak and putting plans in place to implement a fix.

Radioactivity in Food & the Environment (RIFE)

RIFE is a collaborative report on work carried out by SEPA, the other UK environment agencies, Food Standards Scotland and Food Standards Agency on the radiological monitoring of food and the environment. The RIFE reports aim to provide an in-depth assessment of radioactivity in food and the environment in the UK and the public's exposure to radiation, including in the vicinity of Hunterston B. The RIFE report incorporates the results from the analysis of a wide range of samples and key information on local habits to demonstrate both that food remains safe and that the public's exposure to ionising radiation is within legal limits.

The latest edition (RIFE 26) covering 2020 has been published and can be obtained from SEPA's website along with previous year's reports. RIFE 26 reports that the total dose for the representative person (most exposed) around the Hunterston site, which includes both Hunterston A and Hunterston B, for 2020 was 0.005 millisieverts, which is well below the legal annual dose limit of 1 millisievert as set out in paragraph 26, Schedule 8 of EASR18.

Scottish Pollutant Release Inventory (SPRI)

The Scottish Pollutant Release Inventory (SPRI) is a publicly accessible electronic database of releases of pollutants to all environmental media and transfers of non-radioactive waste. We intend that, as far as practicable, SPRI be the principle means by which information on

Scottish pollutant releases and non-radioactive waste transfers is collected and made public. Wherever possible, such information will be collected and presented by this one system. The data for 2019, including that from Hunterston A and B, have been published and are available on SEPA's website under "*Environment/Environmental data/SPRI*".

Mr Keith Hammond

Radioactive Substances Specialist

Speisealach Stuthan Reidio-beo

17 August 2022



HUNTERSTON A

SITE STAKEHOLDER GROUP REPORT

SITE DIRECTOR – MARK BLACKLEY

SEPTEMBER 2022

HUNTERSTON A
SITE DIRECTOR'S REPORT TO THE SITE STAKEHOLDER GROUP
SEPTEMBER 2022

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.

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.

A revision to the Security Plan for Hunterston A which was submitted in accordance with the Nuclear Industries Security Regulations (NISR) 2003 has been approved by the Regulator.

The discovery of a defect on one of the sites authorised gaseous discharge stacks during a planned inspection was reported at the last meeting. The defect was a small hole caused by local corrosion on a thin wall section of the metal duct after the HEPA filter abatement. SEPA has investigated this event and have determined that a warning letter is appropriate in this instance given that the site has shown that there has been no direct harm as a result of the event, and given that there is no evidence of deliberate, repeat, or continued offending.

The Solid Active Waste Bunker Retrieval (SAWBR) Project **team** have safely exported a cumulative total of **244** 3M³ boxes from Bunker 1 to the ILW Store, this equates to **146.7** Tonnes of Bunker 1 waste. This brings the total of 3M³ boxes exported from SAWBR (all 5 bunkers) to **1137** Boxes. It is forecast that the bulk retrieval of waste from Bunker 1 should be completed by Winter 2022 – this has been extended because there is more waste in the bunker than was forecast and because of a slightly slower rate of processing and some minor plant reliability issues.

The Solid Intermediate Level Waste Encapsulation (SILWE) Project continue with preparations for the commencement of Phase 2 Commissioning. The Kuka robots continue to experience issues with plug insertion sequences, although it is expected that the most recent implemented solution will yield positive results.

Good progress has been made on transferring the Magnet Screen from the Pond to SAWBR. This device was used during pond clean and drain activities and it is one of the few remaining higher radiation dose items within the pond. Its purpose was to remove small ferrous orphan materials from the sludge which had accumulated on the pond floor. It is anticipated that the Magnet screen will be transferred to SAWBR by the end of August where it will subsequently be transferred to the ILW Store.

EDF and Magnox are working collaboratively to seamlessly transfer and transition EDF's seven AGR sites to Magnox. A decommissioning strategic baseline workshop involving representatives from EDF Generation and Magnox recently met to consider the case for changes to the current AGR decommissioning strategic baseline reflecting on Magnox operational experience.

Resourcing continues to be a key focus and we are continuing to address resource gaps and reduce vulnerabilities through use of the Magnox New Starter contracts. It is pleasing to note that three of our four new Radiation Protection Monitor trainees have started on Site and our two new Maintenance Apprentices will start in September.

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

2 SAFETY OVERVIEW

2.1 Safety Review Performance

The Day Away Case Rate (DACR) & Total Recordable Incident Rate (TRIR) for Site is 0.00. The Site has continued to demonstrate a good safety performance throughout all areas on Site. During this reporting period there has been one first aid case injury and 16 months have passed since the last Lost Time Accident (LTA) on Site.

The first aid case injury involved a mechanical Fitter whilst using a torque wrench. The torque wrench slipped and struck him grazing his forehead. The Site Emergency Arrangements were enacted via a call to the site control room on 2222 and Nuclear Occupational First Aider sent to provide the appropriate level of attention. The mechanical fitter continued with his daily tasks.

The site was less impacted by positive cases of Covid 19 and in general is unaffected as we continue to deliver safe decommissioning work.

Target Zero campaigns continue and are well received and create discussion, raises awareness, builds knowledge base, and proactively maintains focus on safety, environment, security, waste management and compliance dependant on the topic of the month. In the past three months the topics have been June - *Electricity*, July - *First Aid & Contingency Arrangements* and August - *Controlled Waste*.

The site was visited by NDA representative to inspect the site's arrangements for managing work at height. The NDA representative was also provided with a site familiarisation tour. No issues were raised concerning the site's arrangements relating to the inspection.

The site's Fire Safety Management Group continue to meet bi-monthly to monitor and ensure the fire life safety general arrangements are maintained and effective.

The site receives a consistent number of Learning from Experience Forms or Q Pulse reports of events on site. These reports are assessed at the daily safety and compliance meeting and effective actions placed when appropriate. These reports include good practice where it has been recognised that good practice or preventative actions have been taken, that may have prevented an event from occurring. The site Event Review meeting meets weekly as a minimum and each event reported on site is screened for suitability, correct categorisation and effectively actioned.

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 Accident and Emergency Contingency Arrangements remain in a ready state to respond to foreseeable events that may or could occur through the undertaking of work activity on site.

The Site is actively looking for a new Emergency Preparedness Officer to join the team.

Recent training in Nuclear Occupational First Aid has been undertaken by the site Contingency Team members.

The Contingency arrangements are frequently tested to ensure they remain in a state of readiness- this includes Contractors Contingency Arrangements.

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

The wellbeing group ran more Defibrillator and Resuscitation awareness training sessions. These sessions were well attended. This awareness training will be delivered on a request basis moving forward.

The Site will endeavour to introduce and train other persons on site with the skills required of a Site Contingency Team member. This is to ensure that we have a suitable number of trained candidates that can step into the role and join the team as others express a desire to leave or retire from the business. An article will be placed in the team brief raising the awareness of the site contingency team and ask for volunteers who would be interested in joining the team. We expect a decent level of interest.

3 DECOMMISSIONING PROGRESS

3.1 Hunterston Reactor Project / Plant & Structures

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 1 via a MEWP has also commenced.

The main works to arrest water ingress to the roofs by applying a SIKa protection system is weather dependent and will continue on following completion of the fall arrest and edge protection works and is due to be completed by end of October 2022.

The roof remedial repair project has come up against a number of challenges. Work to install safety nets did not commence as planned due to reassurance surveys taking place to rule out contamination issues in the area and unfavourable weather conditions have impacted the programme.

The contractor has submitted a new programme which sees them working until the end of a weather window in October 2022 and then returning in Spring 2023 to conclude the works.

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 September 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.

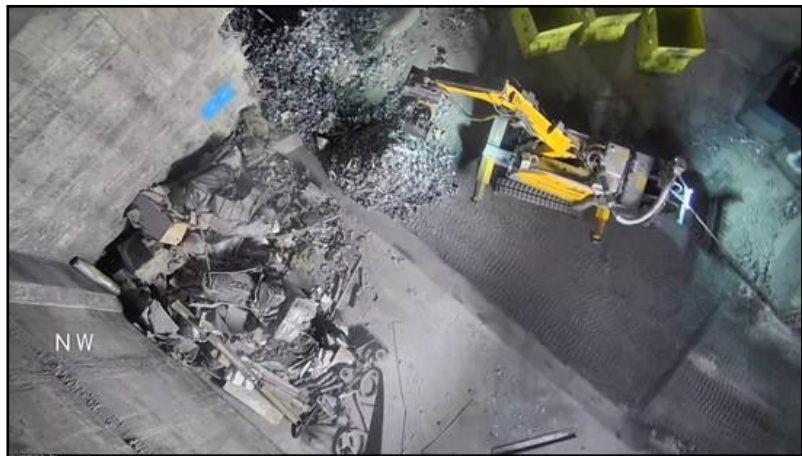
3.2 Solid Active Waste Bunker Retrieval (SAWBR) Project

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 week commencing Monday 1 August 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, with good progress being made between June 2022 and August 2022. To date, the SAWBR team have safely exported a cumulative total of **244 3M³** boxes from Bunker 1 to the ILW Store, this equates to **146.7** Tonnes of Bunker 1 waste.

This brings the total of 3M³ boxes exported from SAWBR (all 5 bunkers) to **1137** Boxes. It is forecast that the bulk retrieval of waste from Bunker 1 should be completed by Winter 2022 – this has been extended (when compared to dates previously reported) because there is more waste in the bunker than was forecast and because of a slightly slower rate of processing and some minor plant reliability issues.



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. Having completed the first stage of sludge recoveries the plant is being reconfigured to retrieve and encapsulate radioactive Nitric acid. This work to reconfigure the plant is currently paused due to other site priorities.

There is some residual sludge remaining from the first stage of sludge recoveries and, when possible, the WILWREP Waste Operations team are continuing to consolidate the residual sludge from three Sludge Retention Tanks in WILWREP into one tank to make future retrievals easier. 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 - the Dumper Bot will then be transferred to SRT2 to continue the process.



Routine planned Maintenance shutdown in WILWREP commenced Monday 1 August 2022 for a duration of approximately two weeks. This outage has now been completed.

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 October of 2022. Following this phase of the project, plant operations will be managed via the SILWE control room.

The Kuka robots continue to experience issues with plug insertion sequences, although it is expected that the most recent implemented solution will yield positive results. The system performance demonstration documentation is currently undergoing client review in readiness for running a fully sequenced demonstration of robot operations.

The project plan is to transition into Phase 3 Commissioning in January of 2023, with Active Commissioning forecast to commence in the fourth quarter of 2024.



3.5 Ponds Programme

ILW Retrieval - Magnet Screen

The Magnet Screen (*see picture opposite*) currently resides within A-Blockhouse within the Cartridge Cooling Pond enclosure.

The device is a legacy piece of equipment which was used during pond clean and drain activities. Its purpose was to remove small ferrous orphan materials from the sludge which had accumulated on the pond floor as it was deposited into hoppers. The Magnet Screen is one of the few remaining higher dose items within the pond and as such a project exists to package it for transfer to SAWBR with its eventual destination being the ILW store at Hunterston.



Throughout the reporting period there has been significant progress in the permissioning of the scope as detailed below:

- The Decommissioning Proposal has been approved
- The F-224 options assessment which informs decisions on how best to manage and dispose of active waste has been approved
- An Engineering Advice Notice concerning the packaging methodology has been written by Magnox technical centre and approved.
- A Disposability Panel has been held attended by the Magnox Disposability Case Manager, Waste Strategy & Permissioning Manager and Waste Programme Chief Engineer amongst others. The review resulted in a successful outcome.
- A project report regarding the magnet screen debris composition has been written and approved.
- The Waste Authority Review 3 has been held with a successful outcome.

Trial runs of the transfer of the magnet screen from the Pond to High Active Waste have been successfully completed and the team are on track to complete the transfer before the end of August 2022 to support the associated NDA milestone.

New Effluent treatment Plant (NEffTP)

Work to install and inactively commission a New Effluent Treatment Plant within the Low-Level Waste Transfer Facility (see *picture opposite*) at Hunterston completed within the previous 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.

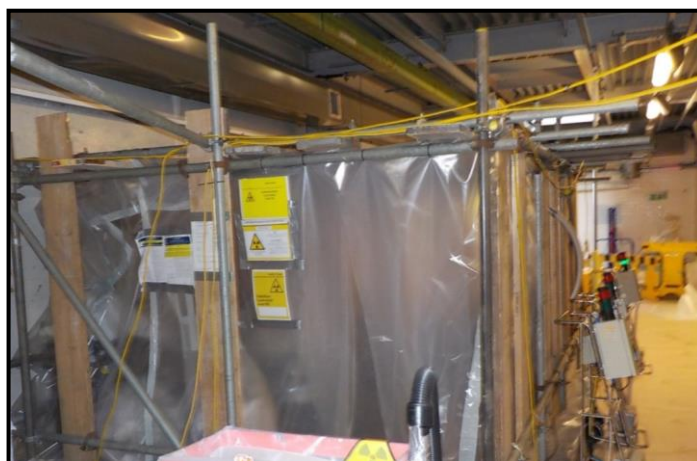


Within the current reporting period the focus has been on ensuring readiness for active commissioning later in the year. The commissioning schedule has been produced and Work Instructions and Plant Operating Instructions are currently being written. Additionally, JCG who were the design integrators shall return to site at the end of August 2022 to integrate the system with the additional delay tanks and to provide high level trip functionality with the wider plant and systems onsite.

ILW Retrieval – West Stop Log Harbour Workshop waste

Within the period the Pond team in collaboration with High Active Waste made significant progress in achieving radiological hazard reduction within the Pond facility by exporting a large volume of ILW to the Solid Active Waste Bunker.

Twenty-seven bags of ILW which had previously been sorted and segregated within a dedicated C4 containment within the Skip Refurb Plant (see *picture opposite*) were handed over to the HAW team for depositing into the bunker in a well-planned and safely executed operation on 30 June.



With the Solid Active Waste flask having left the Pond for the last time earlier in the year and the magnet screen imminent, this leaves only a very small further volume of ILW to be processed, which is currently being planned for export in the near future.

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*

The Asset Management Team are pleased to confirm positive progress for a number of work packs:

1. External water wall removal has made excellent progress with preparations progressing to remove the metal frame – (see pictures directly below).



2. Road repairs and snagging now complete.
3. Gas duct supports in Reactor 1 and 2 inspections complete and concludes no urgent work is required.
4. Two 11kV/415V transformers procured and delivered to site to replace the aged units outside Reactor 1 and 2. The Team are now looking at opportunities to install the new transformers this Financial Year (see picture opposite).
5. Welfare improvements have been delayed as the original contractor is no longer available. Positive progress has been made to secure an alternative provider and plan to complete the work in February 2022.
6. Admin Building Distribution Board replacement has received sanction and expect the unit to be ordered imminently ready for replacement in the next month.
7. Replacement of the Ste Waste Monitoring equipment has been deferred to Financial Year 2024/25 due to effective repairs and previously planned upgrades now progressing.



5 PEOPLE

5.1 Site HR

Over the period resourcing continues to be a key focus and we are continuing to address resource gaps and reduce vulnerabilities through use of the Magnox New Starter contracts with only a very few new vacancies being filled by supply workers, where appropriate.

We do still have some Agency Worker/Contract Supply Worker positions that we wish to fill through a New Magnox Contract either through current incumbents taking up these position or new candidates.

Our trainee positions within health physics disciplines have now commenced and structured training plans in support of their development have been established.

Plans are also in place for our new Craft Apprentices who commence their apprenticeship early September with a Company face to face induction with all variety of apprentices across the Company, followed by site induction, and then a combination of college placement and on-site training.

5.2 Occupational Health

Our Wellbeing Group continue to provide various information and initiatives in support of promoting Good Health. Our Hunterston Step Challenge in June was well supported with 5 teams competing to gain the most steps over a week in support of the 'Move Well' pillar as part of Good Health with a massive 2,649,711 steps completed in total.

Our Hunterston Fitness suite (Gym) is re-opening. The Gym is available to all who work at Hunterston regardless of whether they are a contractor, staff, or a supplied worker. A physical activity questionnaire and completion of a short induction on equipment is required before being able to hit the Gym Safely.

Our Mental Health First Aiders continue to provide a valuable support to our workforce. We have however been looking to increase the number of employee Mental Health First Aiders (MHFA) at Hunterston to ensure we are providing an adequate level of cover and support across all areas of the site. Our MHFA's themselves have recently been providing insight into their involvement as a MHFA and what they enjoy about the role to encourage others to find out more and consider putting themselves forward.

We recently have contracted a new framework Medical Officer (MO) to support Hunterston. He has held his first clinic on site and also been on a site tour to familiarise himself with the working environment and provide greater insight into occupations of the workforce. The new MO will provide the same scope of service as was previously provided attending site once a month.

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 July, are as follows:

- *Approximately 193 employees and visitors received a total collective dose of 7.688 man.mSv between them*
- *Approximately 314 contractors received a total collective dose of 9.767 man.mSv between them*
- *The highest individual dose received by an employee was 1.340 mSv*
- *The highest individual dose received by a contractor was 1.467 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. 86.94m³ of LLW and VLLW with a total activity of 1.5 GBq was disposed of during the twelve-month period from July 2021 to June 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 July 2021 - June 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	0.008 GBq
Caesium-137	160 GBq	0.058 GBq
Plutonium-241	2 GBq	0.002 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	0.051 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 (Jul 2021 - Jun 2022)
All authorised outlets taken together.	Tritium	100 MBq	0.3 MBq
	All other radionuclides (excluding tritium)	3 MBq	0.448 MBq
Discharges made as a consequence of reactor breathing	Tritium	3000 MBq	466.43 MBq
	Carbon-14	200 MBq	51.64 MBq

7.2 Non-radiological Environmental update (July 2021 - June 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 July 2021 to June 2022 the site used 17.35 Terra Joules (Tj) of energy; 17.07 Tj attributed to electricity consumption and 0.28 Tj attributed to fuel use in site vehicles, equipment, and generators. In the same 12-month period the site water consumption was 8,401m³. The site continues to report carbon equivalent emissions data as per the new company process.

Waste disposal and recycling is recorded in the company unified dashboard. Over the period July 2021 to June 2022 a total of 412 tonnes of waste was collected for consignment from site (401 tonnes for recycling, recovery, or composting, 6 tonnes sewage waste and 5 tonnes for disposal to landfill). This gives a recycling rate of approximately 97%.

7.3 Environmental Events

There were no new significant environmental events during the reporting period. However, the discovery of a defect on one of the sites authorised gaseous discharge stacks during a planned inspection was reported at the last meeting.

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.

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.

SEPA has investigated this event and have determined that a warning letter is appropriate in this instance given that the site has shown that there has been no direct harm as a result of the event, and given that there is no evidence of deliberate, repeat or continued offending.

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>

There are a number of Good Neighbour Applications that have been submitted and are being progressed for the Hunterston area and to note that these applications now have a limit of £2000 from financial year 2022/23 as opposed to the previous limit of £1000.

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 2 June	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 7 June	ONR IRR Inspection – Mark Coleby / Graeme Burt
Wednesday 8 June	SEPA Inspection- Melanie Hayes / Andrew Gallagher
Tuesday 14 June	ONR CNSS Inspection – John Duffy / Martin Reid
Wednesday 22 June	ARROSSE <i>(Microsoft Teams Meeting)</i>
Thursday 16 June	Susie Lind EDF Nuclear Decommissioning Director
Monday 21 June	Dave Whitnall / Gary Swift Senior TU Reps
Wednesday 6 July	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 19 / Wednesday 20 July	NDA Asbestos Management Assurance Health Check (Paul Fewtrell)
Wednesday 20 / Thursday 21 July	Independent Asbestos Assurance Review (Collette Willoughby - Ind & John Arnold - Magnox)
Wednesday 20 July	MSO Security Audit
Wednesday 27 July	Laurent Lacroix - EDF
Thursday 28 July	Magnox Monthly Interface meeting Paul Winkle, Magnox / Gareth Thomas, NDA
Wednesday 10 August	David Nixon NDA – Conventional Safety Inspection

Office for Nuclear Regulation (ONR)

Site Report for Hunterston A

Report for period 1 April – 30 June 2022

Foreword

This report is issued as part of ONR's commitment to make information about inspection and regulatory activities relating to the above site available to the public. Reports are distributed to members for the Hunterston Site Stakeholder Group and are also available on the ONR website (<http://www.onr.org.uk/lhc/>).

Site inspectors from ONR usually attend Hunterston Site Stakeholder Group meetings where these reports are presented and will respond to any questions raised there. Any person wishing to inquire about matters covered by this report should contact ONR.

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1. Inspections

1.1. Dates of Inspection

The ONR site inspector and specialist inspectors made inspections at the Hunterston A (HNA) site on the following dates during the report period 1 April – 30 June 2022:

- 17 – 18 May 2022
- 25 – 26 May 2022
- 8 June 2022
- 14 June 2022

2. Routine Matters

2.1. Inspections

Inspections are undertaken as part of the process for monitoring compliance with:

- the conditions attached by ONR to the nuclear site licence granted under the Nuclear Installations Act 1965 (NIA65) (as amended);
- the Energy Act 2013
- the Health and Safety at Work etc Act 1974 (HSWA74); and
- regulations made under HSWA74, for example the Ionising Radiations Regulations 2017 (IRR17) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).
- The Fire (Scotland) Act 2005;
- The Nuclear Industries Security Regulations (NISR) 2003;
- The Nuclear Safeguards (EU Exit) Regulations 2019 (NSR19).

The inspections entail monitoring the licensee's actions on the site in relation to incidents, operations, maintenance, projects, modifications, safety case changes and any other matters that may affect safety. The licensee is required to make and implement adequate arrangements under the conditions attached to the licence in order to ensure legal compliance. Inspections seek to judge both the adequacy of these arrangements and their implementation.

In this period, routine inspections of HNA covered the following:

- Licence Condition (LC) 10 Training;



- LC 12 Duly authorised and other suitably qualified and experienced persons;
- LC 26 Control and supervision of operations;
- Safeguards - Nuclear material accountancy;
- IRR17;
- Security - Roles and associated competencies.

For the LC Inspections the site inspector judged that the arrangements made and implemented by the site in response to safety requirements were adequate. The specialist Safeguards inspector judged that current process and arrangements in place comply with the requirements for nuclear material accountancy set out in NSR19. The Security site inspector judged that the site has adopted a systematic approach to training and that all personnel whose activities have the potential to impact on nuclear security are suitably qualified and experienced persons (SQEP) to carry out their roles.

Members of the public, who would like further information on ONR's inspection activities during the reporting period, can view site Intervention Reports at www.onr.org.uk/intervention-records on our website www.onr.org.uk. Should you have any queries regarding our inspection activities, please email contact@onr.gov.uk.

The site safety and security inspector and safety superintending inspector attended the Annual Regional Review of Safety, Security and Environment (ARRoSSE) meeting. This reviewed the performance of HNA over the previous year and identified the focus areas for the forthcoming year.

2.2. Other Work

The site inspector held a periodic meeting with safety representatives, to support their function of representing employees and receiving information on matters affecting their health, safety and welfare at work.

3. Non-Routine Matters

Licensees are required to have arrangements to respond to non-routine matters and events. ONR inspectors judge the adequacy of the licensee's response, including actions taken to implement any necessary improvements.

There were no such matters or events of significance during the period.

4. Regulatory Activity

ONR may issue formal documents to ensure compliance with regulatory requirements. Under nuclear site licence conditions, ONR issues regulatory documents, which either permit an activity or require some form of action to be taken; these are usually collectively termed 'Licence Instruments' (LIs) but can take other forms. In addition, inspectors may take a range of enforcement actions, to include issuing an Enforcement Notice.

- No LIs, Enforcement Notices or Enforcement letters were issued during this period.

Reports detailing previous regulatory decisions can be found on the ONR website at <http://www.onr.org.uk/pars/>.

5. News from ONR

For the latest news and information from the Office for Nuclear Regulation, please read and subscribe to our regular email newsletter 'ONR News' at www.onr.org.uk/onrnews

6. Contacts

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Published 08/22

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Hunterston Site Stakeholder Group

SEPA Update- Hunterston A

1st September 2022

Chief Executive Appointment

Recruitment for a new Chief Executive has been concluded and Nicole Paterson will take over the role of CEO shortly.

Nicole, who joins the agency in October, is an award-winning local government Chief Officer, with nearly thirty-years' experience across five local authorities, consultancy, and environmental non-executive roles; leading operational, regulatory and strategic environmental services.

With more than twenty-five-years' experience in local government specifically, Ms. Paterson joins from North Lanarkshire Council, Scotland's fourth largest local authority, where her role as Head of Environmental Assets saw her drive a strategic vision of community focused, inclusive growth and prosperity. She led systemic change on climate change adaption, biodiversity, flood risk management, transport policy, planning and green spaces.

The appointment followed an open recruitment process which attracted a broad and diverse range of applications from across Scotland, the UK and Europe.

Cyber-Attack

SEPA continue to update our service status on a weekly basis so that we're clear on what those we work with can expect and how we'll prioritise progress.

Regulation

Environmental Authorisations (Scotland) Regulations 2018 (EASR)- radioactive substances

Telephone communication with the site continued throughout the period since the last SSG in March, including formal monthly staying in touch telephone calls. Routine teleconferences with Hunterston A and the corporate Magnox Ltd team on strategic issues have also continued as before.

Site visits continue in order to ensure compliance with the site permit.

SEPA Investigation 8th June

SEPA attended site on 8th June to undertake the initial fact finding stage of an investigation into potential non compliances with the site permit relating to a hole which was discovered in the Solid Active Waste Building (SAWB) gaseous discharge stack. (see environmental events section below).

Magnox Hunterston A were sent a Warning Letter on the 17th August 2022 detailing SEPA's findings regarding whether there have been any contraventions, or failures to comply with, any of the limitations and conditions of the Certificate of Authorisation number EAS/P/1173609 which outlined breaches of a number of conditions.

SAWB Optioneering

SEPA received an optioneering report from Magnox on 28th March 2022 entitled "Review of Options for Managing Waste from The Hunterston A Solid Active Waste Bunkers Given its Status at May 2021 WD/REP/0032/21".

Having initially reviewed the information sent, SEPA considers it needs to undertake a review of the underpinning characterisation work and whether this is sufficient to underpin the optioneering decisions.

SEPA has taken the decision to procure a specialist contractor to review the model and associated work undertaken by Magnox with regards to the characterisation of the SAWB waste. A contractor has been identified and work will commence in the near term.

Other

Magnox provided SEPA with a programme for the coming year for the HNA site with regards to potential variations to the site permit and associated environmental documentation.

SEPA has requested that Magnox provide a list of extant/ current BPM documentation for the HNA site.

Non-Rad Regulation

There have been no issues relating to non-rad regulation since the last scheduled SSG meeting.

Environmental Events

The site notified SEPA on 31st March 2022 that contractors carrying out an inspection of the site gaseous discharge stacks on 23rd March 2022 discovered a hole in a gaseous discharge stack on the site. The hole was after the abatement but before the inlet into the stack sampler. The hole was repaired by the site a number of days after discovery. The site undertook an investigation into the discovery and identified a number of actions. SEPA has undertaken an investigation into the potential for non-compliances with the Hunterston A site permit.

Magnox have since contacted SEPA to make us aware that during preparation of an area of the SAWB ventilation extract stack for painting / taping 2 holes (approximately 2" diameter) were created. In addition, a further hole was discovered in the stack that is thought to have been present prior to the repair works. SEPA await the site investigation findings on the additional issues with the SAWB stack.

Controlled Activities Regulations (CAR)

On Tuesday 9th August, Magnox contacted SEPA to make them aware of a potential breach of CAR licence condition. This relates to Licence CAR/L/1023168 for discharge of treated sewage effluent.

It was subsequently confirmed that the sample analysis value returned from the offsite lab contained 'data transcript errors' and the correct result was within licence discharge quality standards.

There were no other reportable incidents, complaints or non-compliance events affecting SEPA's interests at Hunterston A known to have occurred since the last meeting of the SSG at the time of writing this report.

Radioactivity in Food & the Environment (RIFE)

RIFE is a collaborative report on work carried out by SEPA, the other UK environment agencies, Food Standards Scotland and Food Standards Agency on the radiological monitoring of food and the environment. The RIFE reports aim to provide an in-depth assessment of radioactivity in food and the environment in the UK and the public's exposure to radiation, including in the vicinity of Hunterston A. The RIFE report incorporates the results from the analysis of a wide range of samples and key information on local habits to demonstrate both that food remains safe and that the public's exposure to ionising radiation is within legal limits.

The latest edition (RIFE 26) covering 2020 has been published and can be obtained from SEPA's website along with previous year's reports. RIFE 26 reports that the total dose for the representative person (most exposed) around the Hunterston site, which includes both Hunterston A and Hunterston B, for 2020 was 0.005 millisieverts, which is well below the legal annual dose limit of 1 millisievert as set out in paragraph 26, Schedule 8 of EASR19.

Scottish Pollutant Release Inventory (SPRI)

The Scottish Pollutant Release Inventory (SPRI) is a publicly accessible electronic database of releases of pollutants to all environmental media and transfers of non-radioactive waste. SEPA intends that, as far as practicable, SPRI be the principle means by which information on Scottish pollutant releases and non-radioactive waste transfers is collected and made public. Wherever possible, such information will be collected and presented by this one system. The data for 2019, including that from Hunterston A and B, have been published and are available on SEPA's website under "*Environment/Environmental data/SPRI*".

Melanie Hayes
Radioactive Substances Specialist
August 2022