



## **HARWELL SITE STAKEHOLDER GROUP 103<sup>RD</sup> MEETING**

**Date:** Thursday 18<sup>th</sup> April 2024  
**Time:** 1000 hrs for refreshments, meeting starts at 1030 hrs  
**Venue:** Jupiter Room, The Satellite Applications Catapult, Electron Building, Fermi Avenue,  
Harwell Oxford, OX11 0QR

### **AGENDA**

1. **Chairman's remarks:**
  - Welcome guests.
  - Chairman's Notes – Chris Broad (10)
  - Apologies for absence and changes in membership
2. Minutes of the 102<sup>nd</sup> meeting
3. Matters arising:
4. **NRS Harwell Licensed Site Matters**
  - (a) Site Director's Report – Paul Brennan (15)
5. **Reports**
  - (a) Nuclear Decommissioning Authority – Report submitted (10)
  - (b) Office for Nuclear Regulation – Report submitted (10)
  - (c) Environment Agency – Rebecca Cleverley (10)
6. **NRS corporate update** – Bill Hamilton – Not attending
7. **NRS site update – Jon Blackmore**
  - a) Liquid Effluent Treatment Plant Land Remediation Update (10)
  - b) Update on Management of Chemical Contamination of Groundwater (10)
8. **Campus Matters**
  - (a) Harwell Campus Joint Venture Partnership – Not attending (10)
  - (b) Science and Technology Facilities Council – Joe Kelleher (TBC) (10)
  - (c) Diamond Light Source – Amy Griffin (10)
8. **Any other business**
9. **Next Meeting – 31<sup>st</sup> October 2024**

**Emma Burwood – Communications and Socio-economics Lead**

**Jess Dawson - SSG Secretariat**

**Jessica Peart - Minutes Secretary**

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## **HARWELL CHILTON CAMPUS LOCAL STAKEHOLDERS MEETING**

Minutes of the 102<sup>nd</sup> meeting held at The Satellite Applications Catapult Centre, Harwell on Thursday November 2<sup>nd</sup> 2023

### **ATTENDEES:**

|                        |                                                                      |
|------------------------|----------------------------------------------------------------------|
| <b>Chair</b>           | <b>Chris Broad, Chilton Parish Council</b>                           |
| <b>Deputy Chair</b>    | <b>John Sharp, East Hendred Parish Council</b>                       |
| <b>Communicaitons:</b> | <b>Emma Burwood, Magnox, Communications lead (not in attendance)</b> |
| <b>Minutes</b>         | <b>Jessica Peart, Magnox</b>                                         |

|                      |                             |
|----------------------|-----------------------------|
| Judy Roberts         | Vale District Council       |
| Paul Bryant          | Parish Council              |
| Michael Fox-Davies   | Harwell Parish Council      |
| Cath Convery         | Harwell Parish Council      |
| John Sharp           | East Hendred Parish Council |
| Paul Brennan         | NRS                         |
| Davinia Dring        | NRS                         |
| Laura Street         | NRS                         |
| Stuart Clark         | NRS                         |
| Gary Reid            | NRS                         |
| Dik Third            | NRS                         |
| Richard Helen        | SSTL                        |
| Stephen Druce        | Chilton Parish Council      |
| Bill Hanks           | Member of the public        |
| Christine Williamson | MRC Harwell                 |
| Peter Turner         | UKHSA                       |
| Paul Barty           | UKHSA                       |
| Ashley Forbes        | Jacobs                      |
| Amy Griffin          | Diamond Light Source        |
| Rebecca Cleverley    | EA                          |
| Aidan Kelly          | EA                          |
| Joe Kelleher         | STFC                        |
| Susan Holdroyd       | Member of the public        |

### **Apologies for absence**

#### **1. Chairmans Remarks – Chris Broad**

Chris Broad welcomed everyone to the meeting, and provided some opening comments:

- Paul Brennan has been appointed as the Harwell & Winfrith Site Director.
- Rob Fletcher has been appointed as the new CEO of NRS. (Previously Magnox)



- Significant changes at NDA over the past months, due largely to contractual changes at Dounreay and Sellafield.
- The creation of Great British Nuclear, puts pressure on a talent pool of nuclear specialists.
- Chris Broad has attended meetings at London re; Magnox rebranding to NRS.
- SSG Chair and Vice Chair continue to hold regular meetings with Paul Brennan and Emma Burwood to discuss site and local issues.
- An election to appoint the Chairman of the SSG Chairs 'Chair of Chairs' was carried out on October 16<sup>th</sup>, with Aled Jones being re-elected.
- Some sites have expressed an interest in housing Small Modular Reactors (SMRs) on their sites.
- Land release at Harwell has been discussed. It was explained that as Harwell is categorised as 'low risk' it does not currently count as a NDA funding priority. Funding is required to provide delicensing, and de-designation to allow land release to the campus. The dialogue continues.

## **2. Minutes of the 101<sup>st</sup> meeting**

- The minutes from the last meeting were accepted as a true and accurate record.

## **3. Matters Arising: Nothing to report**

## **4. Magnox Harwell Licensed Site Matters**

- A short video was presented unveiling Magnox rebranding to NRS (Nuclear Restoration Services). This rebranding will be implemented over a period of two years to ensure the best value for money, and to give the brand strategy time to be embedded.

### **Presentation given by Harwell and Winfrith Site Director Paul Brennan**

- Paul Brennan introduced himself as the newly appointed Site Director for Harwell and Winfrith.
- No lost time accidents in 185 days, as of October 25<sup>th</sup>, 2023.
- No significant issues regarding on-site safety have been raised.
- Atmospheric and liquid effluent discharges from Site remain well within permitted limits.
- Data returned from the Environmental Monitoring Programme is within limits and often at limit of detection.

### **Harwell Land Release**

Stuart Clark talked through the status of land release at Harwell.

Land would be released in phases as decommissioning is completed. Progress with decommissioning is dictated by NDA prioritisation where Harwell is a low risk/low priority. NDA, NRS, UKAEA and Campus developer are talking to central government about separate funding for the Harwell Programme.

### **Programme Update**

- Nuclear Materials Transfer (NMT) consignments on track – target of 85% shipped offsite.



- Progress being made on Remote Handled Intermediate Level Waste (RHILW) Retrievals.
- Preparation underway for minor remediation works and delicensing of West Meashill.
- The B220 facility is working on placing a contract for characterisation works.

### **Nuclear Material Transfers and Remote Handled Intermediate Level Waste (RHILW)**

#### **Retrievals**

- 5592 drums shipped to date – 84.2% of total drums.
- 46.6% of activity (Bq) removed.
- Forecast 86% drums complete by March/April 2024.
- Project completion stable in 2026.
- Gemini active moves making good progress.
- Rate dependent on receiving plant availability.
- Intermediate Level Waste (ILW) retrievals – 5.9Te versus 7.38te target for 2023/24
- Retrieval Machine 2 is being moved to start recovering from array 54 of 64.
- Waste Encapsulation Plant (WEP) has completed phases 1 and 2 of active commissioning and is now operational.
- Retrieval Machine 1 has recovered and dealing with waste for the first time in 10 years.
- The Post Operational Clear Out project continues to develop solutions to allow cleaning for disposal of the waste storage tubes once emptied.

### **Compliance and End States Programme**

#### **Liquid Effluent Treatment Plant (LETP) - Land Remediation**

- Surveys and sampling completed in and around LETP in August 2023.
- Minor remediation works within the LETP deferred until April 2024.
- Sustainable Urban Drainage System (SUDS) lagoon Construction and LETP Reinstatement deferred until 2025.
- Bridleway diversion has been extended until the end of 2024, with a further extension required to late 2025.
- Delicensing case submission – Summer 2025.

#### **West Meashill Area Land Release**

- Extensive surveys and sampling works carried out.
- Minor remediation works underway.
- Delicensing case submission – early 2025.

#### **Downs Way East Land Remediation**

- Ecological surveys have been carried out and mitigation measures are underway.

#### **Groundwater Remediation**

- Discussions being held with the EA over the closure of the Groundwater Plant.

### **Decommissioning (Reactors and Rad Programmes)**

**B220** – Radiological Characterisation and asbestos survey contract has been tendered, with contract award expected January 2024.



**B418** – Intrusive Characterisation works are ongoing, and due for completion in Spring 2024. Demolition planned for Spring 2025.

#### **Socio-economic Funding**

- £2,405 Good Neighbourhood funding remaining out of £6,000, a reminder to get any applications in.
- 7 Harwell funding requests totalling £181,373.
  - Assisted reading for children
  - 1<sup>st</sup> Harwell Scout Group
  - Home Start Oxfordshire
  - Chilton Parish Council
  - Oxford Wood Recycling
  - South Oxfordshire Food and Education Alliance

#### **Other**

- 17 roles have been filled since January 2023. 10 external, and 7 internal.
- 3 apprentice vacancies for September 2023 (x1 MOET, and x2 Rad Protection).

#### **Questions**

Q1: The footpath between North Drive and the campus, is this closed by NRS or the Harwell Campus? And when will it be opened.

A1: Stuart Clark confirmed it is closed by NRS due to work within the area. The delay experienced collecting samples has pushed back the excavation of the balance pond into the winter period, this is not feasible in the winter months due to groundwater levels. Expected closure to last until December 2025, with possible further delays.

Q2: Can a more refined footpath diversion be considered?

**A2: Paul Brennan said NRS would review the routing of the bridleway - ACTION.**

Q3: Can some more information be given on the local impact of ground water remediation?

**A3: Paul Brennan advised this would be included as an item at the next SSG meeting to update further - ACTION.**

Q4: Downs Way East Remediation – could some more information be given?

**A4: Surveys are underway to identify species residing on the site. More detail can be given once surveys have been completed – ACTION.**

Q5. Could more information be provided on the intentions for the Waste Chemical Storage Site.

**A5. NRS to provide more information at the next SSG -ACTION.**

**A note was made to insert a glossary of terms within the minutes. These are included at the back as an appendix.**



## 5. REPORTS

### NDA Report

NDA were not present at today's meeting but have submitted a report for overview.

- Claire Coutinho has been appointed as DESNZ's new Secretary of State.
- NDA's new interim Chair is Chris Train. Chris met with the SSG Chairs, and Vice-Chair in Manchester on 16-17<sup>th</sup> October.
- Preparations are underway for the next in person stakeholder summit in Cumbria in 2024.
- Two successful regional events have been held, showcasing how innovation and technology help the NDA to deliver its mission.
- This year's edition of the NDAs Mission Progress Report is expected to be published in November.
- The socio-economic strategy team has been visiting key stakeholders around the country as part of its three yearly checks that it is fit for purpose. A revised strategy will be shortly published, and a full formal consultation will start in December. All members of the SSG are invited to take part.
- NDA took part in the Nuclear Industry Association's 'Week in Parliament' this September. It presented an opportunity for MPs and other parliamentarians to gain a better understanding of the contribution nuclear makes to the economy.
- NDA's Annual Report and Accounts was published mid-September. It outlines the mission progress on hazard reduction and decommissioning across the UK's civil nuclear sites.
- Phase one of 'One NDA' which has created a simpler group structure has been completed, with Dounreay becoming a division of Magnox.
- NDA has developed a draft code of practice to provide guidance to sites, and site licenced companies. This will be discussed with the sites, regulators and SSG ahead of publication.

Q1. The report mentions that a draft code of practice has been developed and will be discussed with SSG. What timescale is that on?

**A1. The Chair couldn't advise the timescale at today's meeting but will find out and feedback. ACTION**

### Environment Agency (EA) Report – Rebecca Cleverley

Rebecca Cleverley and Aidan Kelly attended the meeting to present the EA report.

- The EA receives discharge returns and environmental monitoring returns from the site each month. The discharge returns are well below permitted rates, and no trends of concern are being seen.
- Meetings are held between the EA and Environment Manager on a weekly basis.
- Quarterly project update meetings are held to discuss what is happening with projects across site.
- Two inspections carried out since the last SSG. In June an inspection of the arrangements for the management of surface water drainage related assets and



prevention of fire water runoff from the Harwell Site. In October an inspection of the asset management arrangements on site took place.

- Buildings on site, particularly under care and maintenance, are being kept cool and dim opposed to cold and dark, and a positive difference is being seen in the condition of the building.
- 28<sup>th</sup> edition of 'Radioactivity in food and the environment' report has been published today.
- The RIFE Report notes that the attributed total dose from the Harwell Site remains similar to that for previous years and is slightly lower than in 2020.

Q1. Does the EA require the site to carry out any monitoring for Perfluoroalkoxy alkanes (PFAS)?

**A1. RC advised this was looked at across the industry and will come back via the Chair with more information. ACTION**

## 6. NRS UPDATE

### **Presentation on Building 220, Radiochemistry Research Laboratory – Gary Reid**

Gary Reid gave a brief history about Building B220, and summarised what decommissioning has taken place for far.

Extensions to B220 over the decades

- B220.7 Shielded Vells.
- B220.8 Extension for plutonium work.
- B220.29 remote handled facility, opened in 1986.
- New electrical supplies and filtered general extract.
- Various office extensions.

B220 Post 1990

- Leased to AEA Technology from 1996 to 2004
- Commercial Medical/Industrial Radioactive Source Production.
- Extensive decommissioning activities from 1990 onwards.

Present Activities

- Radiological characterisation of the facility to allow accurate final decommissioning estimates.
- Upgrading of existing ventilation, fire detection and electrical systems to align with decommissioning activities.

Q1. What is the impact of asbestos within the site buildings on the local area?

A1. Safety controls are in place when dealing with asbestos. (Air flows, containments, modular containments & the wearing of the correct personal protective equipment) will not present any issues for the local area.

Q2. What is happening to acknowledge historic buildings on site once they have been decommissioned/demolished.



A2. Blue Plaques have been issued by English Heritage and are displayed at the old Main Gate entrance to site, and at the entrance to 220. GR would like to see the Blue Plaque at 220 displayed in the local area after decommissioning and land release, for future generations to view.

## **CAMPUS MATTERS**

### **STFC Presentation – Joe Kelleher**

- Joe Kelleher gave a presentation on the central laser facility.
- Joe explained the photonics application centre has recently opened, which will contain a laboratory housing a laser which can fire 10 times per second.

### **Diamond Light Source – Presentation by Amy Griffin**

- Amy Griffin gave a presentation on recent changes/works happening at Diamond Light Source.
- Gianluigi Botton has been appointed as the new CEO.
- The Government has awarded £519.4 million to complete the Diamond II upgrade programme.
- Solar panel array installation on the roof of Diamond is nearing completion.

Q1. How long is the Diamond Source going to be down, while the upgrades take place?

A1. The down period is approximately 18 months. An engineering building will be built to manufacture as many girders as possible, ahead of turning the machine off to minimise the dark period.

## **7. AOB**

- Chris Broad and John Sharp have been reappointed as Chair and Deputy Chair of SSG.

**Next Meeting 18<sup>th</sup> April 2024**

## **APPENDIX 1**

| <b>Term</b> | <b>Definition</b>                       |
|-------------|-----------------------------------------|
| NRS         | Nuclear Restoration Services            |
| EHSSQ       | Environment, Health, Safety & Quality   |
| NMT         | Nuclear Materials Transfer              |
| RHILW       | Remote Handled Intermediate Level Waste |
| WEP         | Waste Encapsulation Plant               |
| ODP         | Offsite Discharge Pipeline              |
| GWP         | Groundwater Plant                       |





Steps for Land Release at NRS Harwell:

1. Decommissioning – removal of radioactive hazards from buildings/facilities followed by demolition.
2. Land quality surveys and sampling – remediation (excavation of contaminated soils/structures in the ground) if required.
3. For each area, application to Office for Nuclear Regulation to remove the Nuclear Site Licence, and to the Environment Agency to surrender the Environmental Permit for Radioactive Substances Regulation. This stage can be referred to as site clearance.
4. De-designation – this process is carried out by the Nuclear Decommissioning Authority to remove the areas in question from the Designated Site (Energy Act 2004).
5. Land release – once all the preceding steps have been completed, the land at Harwell is released back to the land owner, the United Kingdom Atomic Energy Authority, a component of the Harwell Campus JV.



# NDA Update for Harwell SSG

April 2024



# Contents

1.0 NDA Stakeholder Update April 2024



# NDA Stakeholder Update

Please find below a brief update on main points of interest since the last meeting.

## Outreach activities Q1 2024

- We held our latest **Regional Stakeholder Roadshow**, in north Wales on 12 March 2024 at Bangor University. The roadshow provided an opportunity to celebrate the wealth of nuclear expertise in Wales, as well as engage with local students on the NDA's mission and showcase how academic partnerships and collaborations are enabling safe, secure, and sustainable decommissioning. The event followed the successful format from Cumbria and Glasgow which took place in partnership with universities in the regions.
- The first meeting of a **Cross Party Group** on Nuclear Decommissioning was held at the Scottish Parliament on March 27<sup>th</sup> following its establishment by the Standards Committee at the end of last year. The CPG is co-chaired by Oliver Mundell MSP (Conservative) and Colin Smyth MSP (Labour) MSP, and the Deputy Convenor is Emma Harper MSP (SNP). See link for further details: [Civil Nuclear Industry | Scottish Parliament Website](#)
- NRS and the NDA hosted a **visit to Dungeness A and B** with the DESNZ Second Permanent Secretary, Clive Maxwell. There was an opportunity to view the scale of the boilers' removal project at Dungeness A, and the work ongoing at the B site to remove the fuel following early shutdown of the reactors which will ultimately be transferred to the NDA for final decommissioning.

## Engagement priorities for 2024

- Following the useful workshop in Manchester with the Chairs and Vice-Chairs of the SSGs, we will be looking to shortly circulate a draft scope for the **SSG review**. As previously trailed this exercise will provide an opportunity to reflect on the successes of the stakeholder voice in the local community over the last 20 years and consider how best to address some of the challenges that face us as we think about the future.
- In response to previous feedback, we are now firming up plans for this year's **SSG Chairs and Vice-Chairs event** which for the first time will reflect a group-wide approach involving the NDA and NRS CEO and Chairs, and other OpCo CEOs. We hope this combined event will provide a richer discussion and will be circulating details shortly.
- Our next in person **Stakeholder Conference** will be held later this year. We are finalising plans on the venue and date and will keep you informed of progress. We will be inviting your comments on the draft content of the event in due course.
- We will also be issuing our **biannual stakeholder survey** and are currently in the process of designing that. More details will be available later in the year.



- Preparation is underway for **Strategy V** which we expect to publish in March 2026. Our strategy document is published every 5 years and describes our high-level approach to delivering our mission. Within that we identify a number of critical enablers essential to the successful delivery of our mission including public and stakeholder engagement. We will consult on the document in due course.

### **Publications and policy updates**

- DESNZ published its **Civil Nuclear Roadmap to 2050** alongside consultations on its **Approach to siting new nuclear power stations beyond 2025** and **Alternative routes to market for new nuclear projects**. The roadmap includes information and commitments relevant to our mission.
- Our latest NDA 2023 **Mission Progress Report** (MPR) was published in November. It shows how we're progressing delivery of the NDA mission and what's still left to do, providing a baseline against which future progress can be tracked. It should be seen in context with the other NDA documents we issue, and it forms part of our commitment to openness and transparency.
- Following its consultation in 2023, the **Government's new UK policy** on the sustainable and effective management of radioactive substances and nuclear is expected to be published mid-April 2024.
- We consulted on our Draft **Business Plan 2024-2027** which reflects the NDA's most recent Strategy, published in 2021, and sets out key activities and the progress expected across all its sites during the next 3 years, in line with funding allocated by DESNZ. We are analysing responses and expect to publish the final document in the next few weeks.
- Our updated **Social Impact and Communities Strategy** has now been published. The strategy is updated every three years and updated where necessary. The last one was published as the pandemic took hold and much has changed since then. [NDA launches its new Social Impact and Communities Strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/nda-launches-its-new-social-impact-and-communities-strategy)
- Scottish Government engaged stakeholders on its **NSD Technical Report** on 21<sup>st</sup> February. The report has been developed as a technical options paper which will inform any future decisions on SG Waste Policy going forward.

### **Mission delivery**

- NDA and NRS have underlined their commitment to Government to, where possible, safely accelerate **land release at Harwell** site to maximise the economic impact of decommissioning. We have identified clear areas of strategic importance and will work together with the Harwell Campus joint venture on developing options for those areas. We are at early stages and still progressing the current release of plots, aiming to have a broader plan for land release this autumn.



- Sellafield has now removed the first of 237 Zeolite skips from the **First Generation Magnox Storage Pond**. These ponds were historically used to store, cool and prepare Magnox fuel for reprocessing and zeolites were added to help absorb radiation.
- The site has achieved two other 'firsts', the first nuclear waste product to go into a new British-made storage container, known as a self-shielded box, and the first to consign a self-shielded box to Sellafield's new Interim Storage Facility.
- A key milestone has been met ahead of schedule on the **Box Encapsulation Plant (BEP)** which will receive waste from Sellafield's legacy facilities for it to be packaged for interim storage and final disposal. The waste treatment cell is now testing technology and processes ahead of becoming fully operational, and the box operations cell which will provide a central hub for receiving, preparing and distributing waste containers is expected to hand over next month.
- Following the launch of a new **GDF working group** in South Holderness earlier this year, East Riding of Yorkshire Council has since decided to withdraw its consent from the process and NWS will be winding down the group. Engagement with the other three community partnerships involved in the GDF siting process continues.
- NRS is in the process of updating the Dounreay **lifetime plan** which identifies a route map to reach the site's interim end state – the point at which all redundant facilities will have been cleared and the resultant radioactive waste can be stored safely at the site. The new plan prioritises the early completion of work to dismantle the fast reactors and empty two waste disposal and storage facilities. Work will continue in the most complex part of the site, the Fuel Cycle Area, with the aim of finding new and innovative approaches that will benefit decommissioning at other sites, and especially at Sellafield. More detail is expected in the coming months.
- The **NAO value for money study** into whether Sellafield and the NDA are taking a sustainable approach to decommissioning, leading to permanent hazard reduction has now commenced. We will shortly be hosting a follow up visit to that which saw the NAO team and PAC members view a number of the Sellafield facilities last October. We expect the study to report in October.
- We continue to support the wider skills agenda and as part of that commitment announced an extension to our partnership with the **Young Generation Network (YGN)** to 2025. We are working together to maximise learning opportunities for NDA group staff, increase awareness of joining the Nuclear Institute, and support early careers within the nuclear industry.
- **Destination Nuclear** has been launched in the UK to attract and recruit people into the civil and defence nuclear sectors. The nuclear workforce will need to double over the next 20 years, which will support around 80,000 additional jobs across the country. The campaign will target those considering a career change with transferrable skills, as well as supporting a commitment to apprenticeships and graduate schemes and increasing opportunities for PhD students.
- The second year of our **NDA group graduate programme** has opened, with the number of opportunities doubling to 120 across a diverse range of



professional disciplines. The programme complements our support to the industry to build a long-term and sustainable pipeline of skills. We held our first ever large-scale graduate recruitment event in Manchester earlier this month.

Thank you for taking the time to read our update. If you have any questions, please feed-back through the Secretariat.



Nuclear  
Decommissioning  
Authority





Office for  
Nuclear Regulation

ONR Site Report

**Magnox Ltd – Harwell**

## ONR Site Report

### Magnox Ltd - Harwell

Report for period: 1 July – 31 December 2023

Authored by: N Doggett, Nominated Site Inspector

Approved by: I Philips, Delivery Lead, DFW Subdivision

Issue No.: 1

Publication Date: Jan-24

ONR Record Ref. No.: 2024/213

## 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 Harwell Site Stakeholder Group and are also available on the ONR website (<http://www.onr.org.uk/llic/>).

Site inspectors from ONR usually attend Harwell 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. Date(s) of Inspection

The ONR site inspector made inspections on the following dates during the report period 1 July to 31 December 2023

- 30 August 2023
- 20 September 2023

## 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 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 Magnox Ltd Harwell site covered the following:

- radiological protection;
- fire safety;
- examination, maintenance, inspection and testing

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](http://www.onr.org.uk/intervention-records) on our website [www.onr.org.uk](http://www.onr.org.uk).

Should you have any queries regarding our inspection activities, please email [contact@onr.gov.uk](mailto:contact@onr.gov.uk).

### 2.2. Other Work

Throughout this reporting period, ONR's nominated site safety inspector held regular meetings with the Magnox Ltd Harwell leadership team representatives to maintain situational awareness of matters related to nuclear safety. No significant issues were highlighted by ONR.

The ONR project inspector for the delicensing projects continues to meet with the project staff at Harwell, supported by ONR specialist inspectors and UKHSA. Engagements are being aligned with the Harwell campus priorities.

The ONR site inspector supported the Harwell campus emergency planning co-ordination committee in December. No issues were identified. ONR is currently reviewing its position on the need for an offsite emergency plan at Magnox Ltd Harwell under REPPiR 2019.

### 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.

In July 2023 ONR was informed of an incident whereby one the safety measures had been not been applied in accordance with safety case requirements. It was a safety management requirement that a number of "lock offs" were applied prior to removing shielding in the Head End Cell (HEC) as part of a maintenance activity. It was observed on the completion of the maintenance task that one of the lock offs to the HEC crane had not been applied. The purpose of the lock off was to prevent what would be an unauthorised use of the crane to bring radioactive material into the HEC during the maintenance activity thereby giving an elevated dose uptake to the maintainers. In this instance additional layers of protection were in place as per the safety case requirements and consequently there was no risk to members of the public. ONR undertook preliminary enquiries and determined that the duty holder had taken appropriate immediate mitigation measures and that formal ONR investigation was not required.

During December 2023, the Harwell site informed ONR of a temporary failure of its emergency telephone contact line in accordance with agreed incident reporting protocols. ONR was content with the immediate actions taken and prompt rectification of the line. ONR currently awaits completion of the duty holder's investigation to determine learning from the event.

ONR notes the change of operating name from Magnox Ltd to Nuclear Restoration Services (NRS). Until such time as the legal company name changes, ONR continues to refer to the legal name of Magnox Ltd in this report.

## 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 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 ONR, please read and subscribe to our regular email newsletter 'ONR News' at [www.onr.org.uk/onrnews](http://www.onr.org.uk/onrnews).

## 6. Contacts

Office for Nuclear Regulation  
Redgrave Court  
Merton Road  
Bootle  
Merseyside  
L20 7HS  
website: [www.onr.org.uk](http://www.onr.org.uk)  
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# Environment Agency report

## Harwell Site Stakeholder Group

April 2024

This report covers the Environment Agency's regulation of the Harwell Nuclear Licensed Site and related issues for the period between November 2023 and April 2024.

### Radioactive substances regulation

We regulate radioactive waste disposals to the environment. We do this through environmental permits that contain limits and conditions aimed at minimising wastes and protecting people and the environment. We check compliance with the permits through routine interaction with the operator, and by making regular inspections at Harwell.

Working with colleagues across the Environment Agency, we also regulate and control other activities through our environmental permits, including surface and groundwater discharges. Through our corporate objectives, aims and general duties, we also provide advice and guidance to protect or enhance the wider environment and support sustainable development.

We record our regulatory compliance interactions in Radioactive Substances Compliance Assessment Reports (RASCARs). These summarise the type of work we have undertaken, describe any non-compliance or observations of good practice, and include actions or recommendations from our findings. They are public register records and can be provided on request. Please see the 'further information' section at the end of this document to find out how to request public register records.

### Permitting

NRS holds two radioactive substances activity permits under the Environmental Permitting Regulations (EPR) at the Harwell site: one covers the nuclear licensed site (PB3598DX, the 'nuclear' EPR permit); the second covers smaller areas outside the nuclear licensed site boundary (PB3198DJ, the 'non-nuclear' EPR permit).

No changes have been made to either permit since the last SSG meeting. We are providing regulatory advice and guidance on our requirements to support NRS's plans to apply for partial surrender of its permit in the West Meashill area and at the Liquid Effluent Treatment Plant.

### Compliance activities

We check compliance with the permits through regular contact with the operator, site meetings, and by making regular inspections at Harwell. We issue RASCARs to summarise inspections, including any identified non-compliances, actions, recommendations and observations of good practice.

We receive and assess a range of monthly reports from the site. We maintain regular dialogue with the operator to ensure we are kept in touch with any emerging issues at Harwell and with progress on actions.

We hold weekly meetings with the Environment Manager and team to ensure we are aware of progress on decommissioning, progress on actions and recommendations and any emerging issues at the site. The NRS Internal Assessor joins our meetings. We also receive regular updates from project leads at the site.

In January we inspected the arrangements for the management of solid radioactive waste disposals at Harwell. Before the inspection the site provided us with relevant documents so that we could assess management arrangements. We met with the Environment Manager and the site Waste Manager who answered our questions about waste management processes and practices, and shared further documents and records with us when requested. During the site walkdown we met with appropriate staff in areas of interest to us. These are areas on the site where waste is currently being stored and where waste will be generated in future decommissioning projects. We identified no non-compliances with the site permit. On our visit the staff were knowledgeable, open to questioning and committed to compliance.

### **Environmental impact**

The site environmental permit requires NRS to monitor and assess the impact of discharges on the environment. The results of NRS's environmental monitoring programme (EMP) indicate that the environmental impact from permitted discharges remains low. NRS's results continue to be consistent with our independent programme, and do not indicate any results of concern or significant change from previous years.

The Environment Agencies and Food Standards Agency carry out independent environmental monitoring around nuclear sites. These monitoring programmes support our regulatory function and provide reassurance that public radiation exposures are within legal limits. The results of this work are published annually and the most recent report, *Radioactivity in Food and the Environment 2022 (RIFE 28)*, was published on the GOV.UK website in November 2023.

#### [Radioactivity in food and the environment \(RIFE\) reports - GOV.UK \(www.gov.uk\)](https://www.gov.uk/rife-reports)

The RIFE report presents a yearly assessment of radiological dose to individuals in the local population who are most exposed to radiation from each nuclear licensed site (known as the 'representative person'). In 2022, the attributed total dose to the representative person from all pathways and sources of radiation from the Harwell site was less than 0.005 millisieverts. This is less than 1% of the annual limit for radiation exposure for a member of the public of 1 millisievert/year, and less than 0.5% of the average annual amount of radiation we all receive from natural sources (2.7 millisieverts/year). The RIFE report notes that the attributed total dose from Harwell site remains broadly similar to that for previous years.

The report for 2022 continues to show that, overall, total doses to the public from permitted discharges and direct radiation around nuclear sites remained below the legal limit set to protect members of the public (set at 1 millisievert per annum (mSv)). Radioactivity from natural background, rather than nuclear sites, continues to be the more significant source of exposure to communities in all areas of the UK. Artificial radioactivity in the environment, from the nuclear industry and from past testing of nuclear weapons, accounted for less than 0.2% of the exposure to the UK population.

Further information, including the most recent breakdown of the average individual dose to the UK population by source of exposure, is available on the UKHSA website here <https://www.ukhsa-protectionservices.org.uk/radiationandyou/>

### **Discharge reports**

The site's environmental permit requires NRS to use the best available techniques (BAT) to produce the minimum amount of radioactive waste and minimise permitted disposals into the environment. Disposal of wastes – as solids, liquid or gases can only be made via

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permitted routes or to permitted sites. The site is required to report liquid and gaseous discharges to the environment to us on a regular basis. We examine these reports and produce RASCARs for them. Copies of the discharge reports and the RASCARs are made publicly available. See the 'further information' section at the end of this document to find out how to request them.

Both liquid and gaseous discharges from Harwell continue to be at levels well within permitted limits. It is noted that the relative level of these discharges may fluctuate as the decommissioning programme evolves.

### **Incidents and enforcement**

The Environment Agency monitors breaches of permit conditions using the [Compliance Classification Scheme \(CCS\)](#). This ranks breaches on a 1-4 scale, with category 1 being the most serious.

As part of its liquid discharge system from B220, the site uses a flow meter to accurately report how much liquid has been disposed of under the site permit. As part of the monitoring certification scheme (MCERTS) set up by the Environment Agency the site is required to meet certain standards to ensure that flow metering installations continue to meet performance requirements. Calibration of flow meters is required as part of those standards.

In August 2023 the MCERTS flow meter at B220 was calibrated. The site discharged 210 litres of liquid effluent as part of this process (for context, a typical monthly liquid discharge to sewer from the site would be around 6m<sup>3</sup>). The effluent was discharged via the permitted route to sewer from B220 tanks. This discharge was not accounted for in the August liquid effluent discharge return sent to the Environment Agency on 26 October 2023.

Until January 2024, there were no further discharges from the B220 tanks. The discrepancy was only noticed when recording the data for discharges from B220 in January 2024. This was reported to the Environment Agency promptly.

The event has not resulted in any environmental harm, however the additional discharge has had a very slight impact on actual monthly activity reported for August 2023: an additional 0.1 kilobecquerel for total beta activity and cobalt-60, and 0.2 kilobecquerel for caesium-137 (all less than 0.001% of the annual limit). This has had a knock-on impact, meaning subsequent returns, including the 12 monthly cumulative total activity, are inaccurate.

There was no procedure in place to ensure meter calibration discharge was included in the monthly discharge return. This gap in the procedure has led to the discharge produced by the calibration not being reported in the site's statutory discharge returns. We consider that this is a non-compliance with permit condition 4.2.2(a), which requires the site to supply discharge returns on a monthly basis, 8 weeks after the end of the month when discharges were made.

The gap in the procedure meant that the management system was not sufficient to achieve compliance with the conditions of the permit. We consider this to be a non-compliance with permit condition 1.1.1(a), which requires the operator to manage and operate its in accordance with a written management system that is sufficient to achieve compliance with the conditions of this permit.

Using the Compliance Classification Scheme we scored both these non-compliances as a CCS4 - *non-compliances with no potential for impact on human health or the environment*. We have required the site to take the following actions.

- Implement a procedure to ensure discharges resulting from MCERTS calibration are accounted for in statutory discharge returns and to share this procedure with the Environment Agency.
- Review related procedures to ensure no other similar gaps exist and share results with the Environment Agency.
- Produce a 'Green Brief' to share the lessons learned from this event across NRS.

We will be undertaking an inspection of arrangements for liquid discharges in April 2024. As part of that we will be reviewing progress on these actions.

### Further information

A public register service is available on the GOV.UK website at <https://environment.data.gov.uk/public-register/view/index>

You can also request access to public documents by contacting the Customers and Engagement Team in the Wallingford office. Please email [WTenquiries@environment-agency.gov.uk](mailto:WTenquiries@environment-agency.gov.uk)

Further information on our role in regulating the use of radioactive substances and related activities on nuclear licensed sites can be found on the Environment Agency pages of the Gov.UK website at <https://www.gov.uk/government/publications/nuclear-regulation-in-the-environment-agency>

Our enforcement and sanctions policy is available on the GOV.UK website at <https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy/environment-agency-enforcement-and-sanctions-policy>

The UK Health Security Agency has placed guidance on ionising radiation dose comparisons on the GOV.UK website at <https://www.gov.uk/government/publications/ionising-radiation-dose-comparisons>

The Environment Agency's lead nuclear regulator for the Harwell site is Rebecca Cleverley. Rebecca is part of the national Nuclear Regulation Group (South) (NRG (South)) which is based at the Environment Agency's Wallingford office in Oxfordshire.

NRG (South) undertakes environmental regulation of radioactive substances on nuclear licensed sites in southern England. It works closely with the local Environment Agency teams in those areas as well as external bodies such as the Office for Nuclear Regulation.

Members of the local Environment Agency team cover the site for general (non-radioactive substances) environment protection matters such as regulation of groundwater, contaminated land, waste management and water abstraction.

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