

# Environment Agency Report

## Berkeley Site Stakeholder Group

October 2021

This report covers our regulation of Magnox Ltd. at Berkeley Site and related issues, including the Coronavirus pandemic, over the period August to October 2021.

### Coronavirus: Nuclear site regulation operational update

The Environment Agency's priority remains to protect people and the environment. We have set out how we are doing this across the many areas we regulate, advise or interact with the public, for example, flood defence, flood warning, environmental sampling, permitting, angling and fisheries, waterways management and billing (see [GOV.UK](https://www.gov.uk)).

Our existing HR policies and positions will not change initially as a result of Covid-19 restrictions being lifted, however they will remain under review. In brief, currently:

- we are fully operational, with the majority of our staff working from home in accordance with government guidelines
- our frontline staff have returned to near normal regulatory work including physical inspections.

We have maintained regulatory activities at Berkeley, throughout including in-person site visits as well as using remote working arrangements where practicable and effective to do so.

### Radioactive substances regulation

We regulate radioactive waste disposals and discharges to the environment. We do this by placing limits and conditions in environmental permits, which helps us to ensure that radioactive waste discharges are minimised and that the environment is protected. We carry out regular checks of Magnox's compliance with our regulatory requirements.

We also regulate and control other activities through our environmental permits, including surface water discharges to surrounding water bodies and emissions to air.

Radioactive Substances Compliance Assessment Reports (RASCARs) summarising our inspections, and any non-compliances found, are made available to the public on request.

### Permitting

Magnox holds a radioactive substances activity permit under the Environmental Permitting Regulations (EPR) at the Berkeley site (EPR/ZP3893SG). No changes have been made to the permit since the last SSG meeting.

### Compliance activities

We are in regular contact with Berkeley to ensure we are aware of progress on decommissioning, progress on actions and recommendations and any emerging issues at the site. These discussions also include updates on Covid related issues such as number of Berkeley staff infected or isolating. We remain satisfied that environmental performance is not being adversely affected by current Covid-related absences or broader impacts.

We maintain regular engagement with the site, including remote meetings and the routine tripartite (Magnox, EA and ONR) updates. We will continue to check compliance with the permit by undertaking inspections. Under the current circumstances we will, where possible, undertake part(s) of these inspections remotely. If necessary, we will then arrange shorter 'in-person' follow-up visits to the site, in line with government guidelines.

Since the last SSG we have undertaken an inspection of the site's arrangements for managing its environmental monitoring programme and undertaking of sampling and analysis. This was a joint inspection with the Oldbury site regulator, as the environmental monitoring programme covers both sites. The inspection was a combination of document assessment in advance of the inspection, a joint in-person visit to the district survey laboratory at Oldbury where we watched samples being taken in the field and the following sample preparation and analysis. This was followed up with a discussion with relevant staff members over Teams to understand the quality assurance and intelligent customer work carried out by Berkeley.

The staff we spoke to appeared knowledgeable and committed to permit compliance. At the site we observed good housekeeping of laboratory facilities. We found no non-compliances with the environmental permit and we were generally satisfied with the adequacy of the arrangements in place for their environmental monitoring programme.

In addition, in this quarter we issued two RASCARs in response to BAT assessments from Berkeley. One was a BAT assessment for the proposal to use a standardised reporting value (SRV) for the Berkeley Safestores (reactor buildings) in their gaseous discharge returns. We are satisfied with Magnox's suggestions for simplifying some of these reporting requirements, and have agreed Magnox can implement this change for future records of discharges and reporting, with 5 yearly reassurance monitoring.

We also issued a RASCAR in response to a BAT assessment for the proposal to move to the use of a new beta particulate sampling counter on site for the gaseous discharge returns. We are satisfied the new arrangements constitute the application of BAT and can be adopted.

In addition to our own inspection activities we also review, on a weekly basis, Magnox reports of operational events and incidents that have occurred on site. We will follow-up on these where appropriate, but there have been no events or incidents of significant concern or interest to us in the period.

## **Environmental impact**

The site environmental permit requires the operator to monitor and assess the impact of discharges on the environment.

The results of Magnox's environmental monitoring programme 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 low and within legal limits. The results of this work are published annually and the latest report,

“Radioactivity in Food and the Environment 2019” (RIFE 25), is published on the GOV.UK website.

<https://www.gov.uk/government/publications/radioactivity-in-food-and-the-environment-rife-reports>

The report for 2019 continues to show that total doses to the public, from permitted discharges and direct radiation around nuclear sites, remained below the legal limit. 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.

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 2019, the total dose to the representative person from all pathways and sources of radiation from the Oldbury and Berkeley sites combined was less than 5 microsieverts, unchanged from 2018. This is less than 0.5% of the UK National dose limit of 1000 microsieverts and less than 0.2% of the average annual amount of radiation we all receive from all sources of radiation including natural sources (2700 microsieverts/year).

## Discharges from site

The site’s environmental permit requires Magnox to use best available techniques (BAT) to manage its operations, and ensure their impacts on the public and wider environment are minimised. Disposal of wastes – as solids, liquid or gases can only be made via permitted routes or by transfer to permitted sites. Magnox must also carry out a programme of environmental monitoring. A report of the liquid and gaseous discharges to the environment, and the results of the environmental monitoring programme must be submitted to us on a periodic basis. We examine these reports and report on their performance through a RASCAR.

Both liquid and gaseous discharges from Berkeley continue to be at levels well within permitted limits for Q2 (Apr-Jun) 2021. Liquid discharges are currently around 0.05% of the annual limit. Gaseous discharges are also within permitted limits. Tritium is currently 0.4% of the annual limit, carbon-14 is 10% and other beta discharges are 2.4% of the site annual gaseous discharges.

## Enforcement

We have not taken any enforcement actions at Berkeley in the period since the previous SSG meeting.

## Sustainable Development

We are supporting Magnox with the development of their Magnox sustainability strategy. We have provided technical advice and shared our learning from our own experience of implementing sustainable development goals into our business, which includes flood and coastal risk management capital works. Over the coming months, we will continue to support Berkeley in developing its thinking in this area and broader opportunities for improving environmental performance and outcomes throughout the decommissioning process at Berkeley.

## Environment Bill

The delayed Environment Bill returned to Parliament on 13 October for a third reading in the House of Lords. The passage of the Environment Bill will not fundamentally affect the Environment Agency's regulation of nuclear sites. It will, however, provide enabling measures that may offer opportunities to simplify and enhance the regulatory framework for UK regulated industry. We will report on the implications of this Bill in subsequent SSGs.

## Further information

The Environment Agency's Lead Regulator for Berkeley Site is Sophie Gallagher, based in the Environment Agency's Nuclear Regulation Group (South) (NRG(S)).

NRG(S) is responsible for the environmental regulation of radioactive waste disposals on or from nuclear licensed sites in southern England (and in south Wales, on behalf of Natural Resources Wales). We also work closely with the local Environment Agency teams in Wessex Area in relation to other Environment Agency roles and responsibilities.

**Address** Environment Agency, Nuclear Regulation Group, Red Kite House, Howbery Park, Wallingford, Oxfordshire, OX10 8BD

**NRG(S) Telephone** +44 208 474 8298

**Regulator Email** [sophie.gallagher@environment-agency.gov.uk](mailto:sophie.gallagher@environment-agency.gov.uk)

A public register service is available on the GOV.UK website at:

<https://environment.data.gov.uk/public-register/view/index>

Alternatively you can request access to public documents directly 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 publically 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>

Public Health England has placed guidance on ionising radiation dose comparisons on the GOV.UK at:

<https://www.gov.uk/government/publications/ionising-radiation-dose-comparisons>