

Environment Agency report

Harwell Site Stakeholder Group

September 2021

This report covers the Environment Agency's regulation of the Harwell Nuclear Licensed Site and related issues for the period between March 2021 and September 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 on 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)).

In brief:

- We are fully operational, with the majority of our staff working from home.
- Our frontline staff have returned to near normal regulatory work including physical inspections.
- We have published a series of temporary [regulatory position statements \(RPSs\)](#). RPSs are national arrangements that allow for limited relaxations of regulatory requirements provided certain circumstances and conditions are met. They clearly set out the standards that must be adhered to. The RPSs issued at the beginning of the pandemic have and will continue to be reviewed, and extended or withdrawn as necessary.

Please see our published statement for further information:

<https://www.gov.uk/government/news/coronavirus-environment-agency-update>

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 the environment. We check compliance with the permits by making regular inspections at Harwell.

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 available to the public on request.

Permitting

Magnox holds two 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, however, we are advising Magnox on our requirements for both permits in relation to applications for partial surrender that are likely to arise when work at the LETP is concluded.

Compliance activities

We check compliance with the permit by making regular inspections at Harwell. We issue RASCARs for all inspections to summarise the inspection, 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 are continuing to hold weekly meetings with the Environment Manager, who has kept us informed of activities and the impact of covid-19 at the site.

We have produced a new inspection plan for the financial year 2020/21 and plan to inspect the permit compliance arrangements for the following topics:

- Quarter 1 inspection: Gaseous discharge systems;
- Quarter 2 inspection: Environmental monitoring programme;
- Quarter 3 inspection: Environmental leadership and capability;
- Quarter 4 inspection: Radioactive waste management.

In June we undertook an inspection of the arrangements for the discharge of gaseous waste.

During the inspection we reviewed the arrangements for controlling the sampling and assessment of radioactive discharges, the arrangements for maintenance and asset management of the radioactive discharge abatement and discharge systems and we performed a walk down of the gaseous sampling facilities in B462 and B220. The arrangements for management of radioactive gaseous discharges appeared to be mature and included examples of good practice. The staff we met with were knowledgeable and committed to permit compliance. We gave general advice and guidance including recommendations and observations. These will be followed up as part of routine regulatory business for the site.

The Quarter 2 inspection is planned for the 14th September and we will inspect the site's arrangements for the environmental monitoring programme. We will cover the findings of this inspection at the next SSG report.

Environmental impact

The site environmental permit requires the operator to monitor and assess the impact of discharges on the environment. This monitoring demonstrates that the impact of the site on the environment is low.

The Environment Agencies and Food Standards Agency also 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 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>

This is the 25th edition of RIFE containing information on radiation exposures (doses) to the public and radioactivity levels in the environment during 2019. It covers locations near to nuclear licensed sites, industrial and landfill sites, and non-nuclear sites. It also reports on regional monitoring away from these sites, which provides data on background radiation levels.

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'). For the Harwell site, the representative person in 2019 was an adult living near the site, which is the same as previous years. The primary source for the attributed dose is from direct shine radiation. In 2019, the total dose to the representative person from all pathways and sources of radiation from the Harwell site was 10 microsieverts which is 0.1% of the UK National dose limit of 1000 microsieverts and less than 1% of the average annual amount of radiation we all receive from natural sources (2700 microsieverts/year). The RIFE report notes that the total dose remains broadly similar to those from previous years.

Incidents and enforcement

On the 23 February 2021, we were informed that the site would not be able to submit the annual Pollution Inventory data by the required date of the 25th February; the provision of this data is a requirement of the site's EPR 16 Permit (PB3198DJ).

Magnox reported to us that during the verification of the data, errors had been detected and correcting the data could not be completed before the submission date. We asked Magnox to confirm when the corrected data would be submitted; Magnox clarified when this would be available and submitted the data by this date. Magnox carried out an investigation into the event and identified improvements to their procedures and training to mitigate against a re-occurrence.

As the permit condition was not met, this was recorded as a non-compliance with the requirements of the site's permit.

The Environment Agency monitors breaches of permit conditions using the Compliance Classification Scheme (CCS). This ranks non-compliances on a 1-4 scale, with category 1 being the most serious. Category 3 and 4 non-compliances are both considered 'minor', with Category 4 non-compliances having no associated potential environmental impact and considered to be events requiring little or no additional regulatory resources beyond that given in routine engagement with the site to bring them back into compliance.

In considering our enforcement response, we took account of the proactive approach by Magnox to identify the data errors, corrective actions taken to provide the correct data and that there was no associated impact to the environment. We concluded that the event was a Category 4 (minor) breach of permit condition 4.2.2 which states 'The operator shall supply such information in relation to: (a) the disposals of radioactive waste;in such format and within such timescales as the Environment Agency may specify in writing.' In this case, the requirement for the pollution inventory submission was specified as 'The information shall be provided not later than 28 February each year for disposals made during the preceding calendar year;'

A second event was reported to us on the 11 June 2021 where the site had been unable to make a record of an aqueous discharge within the timescales specified in the site's EPR 16 Permit (PB3198DJ). This event is part of a wider issue identified at Magnox associated

with difficulties in their supply chain and we not yet completed our compliance assessment. We will provide more information to the SSG when this has been completed.

Discharge reports

The site's environmental permit requires Magnox to use the best available techniques (BAT) to produce the minimum amount of radioactive waste, and minimise disposals into the environment. Disposal of wastes – as solids, liquid or gases can only be made via 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 a RASCAR for them. Copies of the discharge reports and the RASCARs are available on request. See the 'further information' section at the end of this document to find out how to request them.

Further information

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

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>

The Environment Agency's lead nuclear regulator for the Harwell site and its tenants is Matthew Castle. Matthew 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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