

Environment Agency report

Harwell Site Stakeholder Group

February 2020

This report covers the Environment Agency's regulation of the Harwell Nuclear Licensed Site and related issues for the period between April and October 2019.

Our 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 made 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.

Compliance activities

We check compliance with the permit by making regular inspections at Harwell. For all inspections we issue RASCARs. These reports summarise the inspection we carried out, describe any non-compliances found, and include 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.

In December we undertook an inspection of arrangements for disposals of higher activity solid radioactive wastes from the site. The Environment Agency's NWAT (Nuclear Waste Assessment Team) Assessor for the site took part in the inspection. NWAT provides specialist technical support to assess proposals and safety cases for radioactive waste disposal facilities and for managing higher activity radioactive wastes.

During the inspection we covered the site's progress with letter of compliance submissions to Radioactive Waste Management Ltd (the 'Letter of Compliance' process is part of the disposability assessment process in place to ensure that any higher activity wastes packaged today are likely to be compliant with future transport and disposability requirements); the nuclear materials transport project; records management; and we performed a walk down of facilities. The arrangements for management of ILW appear to demonstrate good practice. The staff we met with were knowledgeable and committed to permit compliance. General advice and guidance was given to the operator, and recommendations and observations were noted. These will be followed up as part of routine regulatory business for the site.

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We are currently looking at inspection priorities for the 2020/21 regulatory year and will update the SSG on this at the next meeting.

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 2018” (RIFE 2018), is published on the GOV.UK website.

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

This is the 24th edition of RIFE containing information on radiation exposures (doses) to the public and radioactivity levels in the environment during 2018. 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.

In 2018, the contribution to the total dose from the liquid and gaseous discharges regulated by the Environment Agency was 5 microsieverts, unchanged from 2017. This is less than 1% of the average annual amount of radiation we all receive from natural sources (2700 microsieverts/year).

Incidents and enforcement

Since we last reported to the SSG, we have considered our enforcement response to an event at LETP where a waste shipment was despatched with incorrect paperwork. This related to the despatch of very low level radioactive waste (VLLW). Despite the irregularities in the paperwork, the waste was disposed of to its intended destination. The event did not result in any environmental impact and did not challenge the receiving site’s waste acceptance criteria. The operator notified us promptly.

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 4 non-compliances are considered to be events requiring little or no additional regulatory resources beyond those given in our routine engagement with the site.

We scored this event as two category 4 non-compliances with the permit: one for waste with incorrect paperwork being sent to the appropriately permitted facility; the second because although procedures were in place, they were incorrectly implemented.

As previously reported to the SSG, we made a site visit shortly after the event to inspect improved procedures in action. In accordance with our enforcement policy we decided the proportionate enforcement response was to issue regulatory advice and guidance to bring Magnox back into compliance and mitigate against similar non-compliances arising in the

future. We believe Magnox carried out a thorough investigation, including identification of appropriate corrective actions. We believe Magnox set out a comprehensive programme for implementing the recommendations it had identified in its report and we have incorporated these into a regulatory action.

As previously reported at the SSG, a track at the site was resurfaced using waste from road maintenance which had been designated as hazardous waste. The waste was not radioactive.

We visited the site to inspect the location where the waste had been reused, and spoke to representatives of the Magnox Property, Waste and Environment teams as part of our investigation. Our area Environment Management waste team sent a Warning Letter to the site requiring Magnox to remove the waste material from the site. This removal has now been completed and we have been provided with photographic evidence. Confirmation in writing will enable us to close our investigation. We will be conducting a further waste inspection in March 2020.

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 release as little as possible 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.

Liquid and gaseous discharges from Harwell continue to be at levels well within permitted limits.

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 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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