

Environment Agency Report to Berkeley Site Stakeholder Group

For SSG Meeting 31 January 2018 - This report covers our regulation of Berkeley Nuclear Licensed site.

Radioactive substances

We check compliance with the permit by undertaking inspections at the site and review submissions made by the operator. We prepare Radioactive Substances Compliance Assessment Reports (RASCARs), detailing our inspections and any identified non-compliances. These reports are placed on our public register. In addition to our own inspection activities we also routinely review Magnox reports of events and incidents occurring on site - and follow these up where appropriate.

Site Regulation

There were no site inspections during Q3 (October and December 2017) due to a delay in implementing a planned nuclear fleet wide-themed inspection on Asset Management. Two inspections (including the Asset management inspection) are now planned for Q4 (January to March 2018). These will be reported during subsequent SSG's.

Other Work

We have continued to work with site to:

- Ensure that the site develop an appropriate Materials Management Plan to manage the generation and storage of construction and demolition wastes derived from the removal of buildings on the site (as part of an overall decommissioning plan)
- Ensure the operator develops a programme for planned gaseous emissions (from decommissioning of the whole site) to meet requirements for an opinion on the proposal under Article 37 of the Euratom Treaty. The Berkeley site draft A.37 submission was received by the Environment Agency during late December 2017, and is now being processed in conjunction with the Department for Business, Energy and Industrial Strategy (BEIS)
- Consider progress on the operator's future application of Robust Concrete Boxes (RCB's) as a potential replacement for Ductile Cast Iron Containers for ILW storage within the Intermediate Storage facility (ISF).

Discharge Reports

Berkeley site report their radioactive liquid and gaseous discharges at quarterly intervals.

We have reviewed the data submitted to us by Magnox.

Discharge trends remain consistent with previous years, and continue to remain within permitted limits. However, as part of the requirements for consideration under A.37 of the Euratom Treaty, we will review predicted gaseous emissions and trends, to consider future permitting requirements (see below).

Site Permit Compliance

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

There were no potential non-compliance breaches or events reported to us during Q3 2017.

Permit Variations

We will shortly issue a revised Compilation of Environment Agency Requirements (CEAR) to reflect the most current template for this document.

Although there have been no variations to the radioactive substances permit during 2017, we anticipate an application (to include the new gaseous waste discharge outlets for the Modular ILW Encapsulation Plant (MILWEP)) sometime during 2018. However, this will be subject to the response from the BEIS A.37 opinion submission and we will be unable to determine any application in the absence of this opinion.

In addition, we are also proposing a variation to the permit during 2018 to include new conditions to support the implementation of guidance on requirements for release of nuclear sites from radioactive substances regulation – commonly referred to as 'GRR'. Further details of the GRR requirements can be obtained from the Scottish Environment Protection Agency (SEPA) website at: <https://consultation.sepa.org.uk/operations-portfolio/grr/>

Environmental reporting

We carry out sampling and analysis under an independent environmental monitoring programme, in association with the Food Standards Agency. The results of this work are published in an annual Radioactivity in Food and the Environment (RIFE) report. Berkeley and Oldbury sites are considered together for the purposes of environmental monitoring because the effects from both sites contribute to the same area.

The monitoring data for the calendar year 2016 was published in RIFE report 22 (RIFE 22) in October 2017. In 2016, the dose to the representative person (the group receiving the highest dose) from radioactivity originating from Berkeley and Oldbury was considered low, at 0.006 millisieverts. Although this is a slight increase from the figure for the previous year (which was less than 0.005 millisieverts), this level of radioactivity in the environment remains close to background and no intervention is required. As a total dose from all pathways, this approximates to levels less than 1 % of the national dose limits set to protect members of the public¹.

In parallel to this programme, Magnox is required to carry out its own programme of environmental monitoring and to submit the results of this programme to us on a periodic basis.

In December 2017 we received notification from Magnox that in November 2017, a seaweed sample collected in the vicinity of Oldbury Site returned levels of activity that were statistically significant. However, Magnox's assessment and analysis concluded that the elevated reading related to a common, naturally occurring radionuclide (potassium-40). We have accepted this assessment. We will monitor subsequent measurements, however, no further intervention is required at the current time.

We make the information (from both Magnox's and our own environmental monitoring programmes) available on our public register.

ILW Management

Intermediate Level Waste (ILW) retrieval and conditioning work is progressing after some delays due to equipment outage.

Although this work will significantly de-risk and address legacy hazards, the retrievals project represents a difficult logistical challenge-very much a lead and learn process for the remainder of the Magnox fleet. We are working very closely with the Office for Nuclear Regulation (ONR) to assess the retrieval and conditioning work to ensure this work is appropriate and that best available techniques (BAT) are used to minimise discharges and impact to the environment.

¹https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/563010/RIFE21.pdf

Further Information

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 page in the UK government website².

Change of Lead Nuclear Regulator

During the Q4 period, Peter Reynolds will be taking over as the nominated Nuclear Regulator for Berkeley Site from Adam Davis. Further details will be provided shortly, and Peter's contact details will be included in our next report to the SSG.

Adam's office address is:

Address: Environment Agency, Red Kite House, Howbery Park, Wallingford, Oxfordshire, OX10 8BD.

Email: adam.davis@environment-agency.gov.uk

Adam's office telephone number is 01258 483418.

²<https://www.gov.uk/government/organisations/environment-agency>