

Oldbury Site SSG Report

25 October 2017 meeting

This report covers our regulation of Oldbury Site and related issues over the period June to October 2017

Radioactive Substances Regulation

We regulate radioactive waste disposals 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.

Site Regulation

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

We have carried out one site inspection at Oldbury since our last report to the SSG. The inspection looked at Magnox's arrangements for the management and disposal of low level radioactive waste (LLW). This included reviewing the procedures at the site for waste characterisation, monitoring and segregation and the application of Best Available Techniques (BAT) to radioactive solid waste. We did not identify any non-compliances during the inspection but suggested some areas for improvement. We also noted a number of examples of good practice.

Other notable developments at Oldbury since the last SSG meeting:

Magnox are continuing with work to clean up and decontaminate the fuel cooling pond. The removal of pond furniture - metallic architecture installed in the ponds for the handling and storage of irradiated fuel - has now commenced.

We attended Magnox's Annual Regional Review of (Leadership and Management for) Safety, Security and Environment, which covered the period April through June 2017. We noted the good environmental performance at Oldbury over the period.

Enforcement

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

Environmental Permitting

We anticipate an application from Magnox to vary the radioactive substances permit to include the new gaseous waste discharge outlets for the R1 and R2 passive ventilation systems. This is subject to the systems being successfully commissioned. We expect to receive this application by the end of October 2017.

We are also anticipating an application from Magnox this year to vary the non-radiological water discharge permit. This will be required to authorise discharges associated with the operation of a proposed reverse osmosis (RO) plant.

Intermediate Level radioactive Waste (ILW) Strategy

We work together with the Office for Nuclear Regulation (ONR) to advise Magnox on regulatory issues of mutual interest. We provide advice to Magnox on the potential environmental considerations associated with its plans to progress the site through decommissioning, including Magnox's proposals for managing ILW at the site.

There have been some developments since the last SSG meeting in relation to the management of ILW:

Magnox has confirmed that retrievals Fuel Element Debris (FED) from the storage vaults in the Reactor Block will be delayed until 2020/2021. This is to allow for the radioactive decay of the tritium component of the waste. Allowing the tritium to decay should allow Magnox to manage the FED as LLW, rather than ILW.

Magnox has been undertaking some work to identify how it will manage the ILW skips that are currently being stored in the cooling ponds. This work included a trial cut of an LLW skip, outside of the ponds. It is

likely that the ILW skips, once removed from the ponds and appropriately size-reduced, will need to be stored at the site for 1-2 years, pending an available off-site transfer route.

Drying Facility and Waste Transfer Building

Magnox has advised us of its intention to apply to South Gloucestershire Council for an Environmental Impact Assessment screening opinion in relation to a proposed wet waste drying facility and waste transfer building at the site. The proposed facilities are required to support site decommissioning. This application is expected in October/November 2017.

Discharge Reports

Nuclear sites are required to routinely report to us their liquid and gaseous radioactive discharges to the environment. We review these reports for compliance and this work is detailed in a RASCAR, which is placed on our public register.

We have reviewed the radioactive gaseous and liquid discharge data submitted to us by Magnox for the site for the periods April-June and July-September 2017.

Overall the levels of radioactive gaseous and liquid discharges remain low and far below the levels discharged when the station was operational.

Environmental Monitoring

We carry out sampling and analysis under our independent environmental monitoring programme, in association with the Food Standards Agency. The results of this work are published in our annual Radioactivity in Food and the Environment (RIFE) report.

The monitoring data for the calendar year 2015 has been published in Food and the Environment report 21 (RIFE 21). The dose to the representative person (the group receiving the highest dose) from radioactivity originating from Berkeley and Oldbury in 2015 was low, at less than 0.005 millisieverts, and was unchanged from the dose in 2014.

The independent monitoring data, indicate that the levels of radioactivity found in the environment remain low and close to background levels.

RIFE 22, covering 2016, is currently in production and is expected to be published in October 2017.

In parallel, Magnox is required to carry out a rigorous environmental monitoring programme that requires the operator to monitor and assess the impact of its discharges on the environment.

We reviewed data submitted to us relating to Magnox's joint programme of environmental monitoring for Oldbury and Berkeley Sites, covering the period April through June 2017. We noted that levels of radioactivity in the environment around Oldbury and Berkeley remain low.

We received a notification from Magnox in October that slightly elevated levels of iodine-131 were detected in a sample of seaweed taken as part of the Oldbury-Berkeley environmental monitoring programme.

Elevated levels of this radionuclide have been detected in samples at this location over the years, which lies to the south of the Severn Bridge (M4) crossing.

Iodine-131 is a common product of the nuclear fission process and is also used in medical applications. Iodine-131 has not been produced at Oldbury Site since power generation ceased. The radionuclide has a half-life of around 8 days and we are satisfied that its presence in the environment could not be attributed to operations at the sites. A more likely source of the iodine is one of the local major hospitals that utilises this radionuclide in medical treatments.

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

The Environment Agency's Lead Regulator for Oldbury Site is Rob Green, 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

Email: robert.green1@environment-agency.gov.uk

Telephone: 020302 59745