

## **Introduction**

This report covers the Environment Agency's (EA's) regulation of Oldbury nuclear power station and related issues.

## **Radioactive substances regulation**

### **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 also check compliance with the permit by making regular inspections at Oldbury. Radioactive Substances Compliance Assessment Reports (RASCAR) detailing our inspections and non-compliances found are put on the Public Register.

Our work at Oldbury has been focussed on the following themes and issues in the last quarter:

- Inspection of Oldbury's arrangements for the management of low level waste.
- Review of arrangements for the abatement and monitoring of emissions to air.

No non-compliances were identified during these inspections. Some recommendations for improvements were made. These will be followed-up during subsequent visits to site.

### **Permitting**

The Environmental Permitting Regulations were amended in 2013 to take account of the requirements of the Industrial Emissions Directive (IED). A result of this was that small incinerators and oil burners that burn radioactive waste, such as those at Oldbury, needed to meet new legal requirements by January 2014.

Magnox decided that the Oldbury incinerator and the oil burner would not be upgraded to meet the new IED requirements. Combustible waste would instead be transferred to

permitted off-site incinerators. Use of the on-site appliances ceased before January 2014, as required under IED. We have varied the Oldbury permit to remove the use of the incinerator and oil burner as a permitted activity.

We have also removed a number of emission points to air from the list of permitted emission points. Following the transition from generation to the defueling phase, there are no longer routine emissions (or the risk significant non-routine emission) from these points.

We have made changes to some requirements within the Compilation of Environment Agency Requirements (CEAR) document. We have removed the requirement that emissions to air of argon-41 and sulphur-35 be monitored. Both radionuclides have relatively short half-lives, have not been produced since generation ceased and have now decayed away to insignificant levels. Oldbury is required to continue monitoring emissions of carbon-14, tritium and particulate matter containing radionuclides that emit beta particles. We have not made any changes to the requirements monitoring of liquid emissions.

Environmental monitoring requirements are no longer detailed in the CEAR. Instead, Oldbury is required to demonstrate that their environmental monitoring programme meets BAT (Best Available Technique) standards. Oldbury has prepared a BAT assessment, which has been accepted by the Environment Agency.

The permit variation and CEAR were issued on 9 April and become effective on 1 May 2014. Copies are available on request.

### **Enforcement**

We have not taken any enforcement actions in the period (January 2014 to April 2014) since the previous Oldbury SSG meeting.

## Liquid discharges

Historically Oldbury abstracted water from the River Severn to cool the reactors. Abstraction and discharge of cooling water continued until December 2013 to dilute and mobilise the treated radioactive effluent discharged from the site via a covered culvert to the River Severn.

Bad weather in December 2013 led to damage to the cooling water inlet at the site and abstraction of cooling water had to cease. Oldbury provided an assessment, which we accepted, that demonstrated that continuing discharges in the short-term without cooling water would result in a negligible increase in the already small environmental impact of the discharges.

Oldbury has plans in place to install a new pipeline (the active effluent discharge line, or AEDL) that will transfer effluent to the Bristol Channel. We are encouraging the site to install the AEDL as soon as possible. We expect the pipeline to be installed in the autumn of this year.

## Discharge reports

The operator at Oldbury is required to report liquid and gaseous discharges to the environment on a regular basis. These reports are placed on the public register and a digest of information is available via the Environment Agency website's 'What's in your backyard?' facility<sup>[1]</sup>.

Liquid and gaseous discharges from Oldbury are at levels well within the requirements of its permitted limits. No Quarterly Notification Levels (QNLs) have been exceeded in the period.

## Environmental impact assessment

Magnox has completed the 2012 annual retrospective radiological dose assessment for Oldbury. The assessment indicated that (at the 95% confidence level) no individual would have received a dose resulting from emissions from the site exceeding 20 microsieverts.

This is similar to the dose estimate of 14 microsieverts arising from emissions from Oldbury and Berkeley and presented in the in

2012 report on Radioactivity in Food and the Environment (RIFE 18 report)<sup>2</sup>, and well below the annual public dose constraint of 300 microsieverts/year.

## 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 GOV.UK website<sup>[3]</sup>.

The Environment Agency's Lead Regulator for the Oldbury site is Peter Reynolds, who is part of the Nuclear Regulation Group (South) team and is based at our Wallingford office.

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<sup>[1]</sup> <http://apps.environment-agency.gov.uk/wiyby/default.aspx>

<sup>2</sup> [Rife 18 report](#)

<sup>[3]</sup> <https://www.gov.uk/government/publications/nuclear-regulation-in-the-environment-agency>