

24 February 2017

## Introduction

This report covers the Environment Agency's regulation of Hinkley Point A & B nuclear sites and related issues for the period November 2016 to February 2017.

## 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 also check compliance with the permits by making regular inspections at Hinkley Point A & B.

Radioactive Substances Compliance Assessment Reports (RASCAR) detailing our inspections and any non-compliances found, are put on the Public Register<sup>[1]</sup>.

We maintain regular contact with the sites by telephone and e-mail in addition to our formal correspondence and visits to the sites.

## Hinkley Point A

Our work at Hinkley Point A (HPA) has been focussed on the following themes and issues in the last quarter:

- In November we conducted an inspection on management of 'Out of Scope' wastes. These are wastes that have had the potential to be classified as Low Level Waste but through a defined process have been shown to have very low levels of radioactivity and are therefore suitable for disposal as conventional wastes. Two non-compliances with the permit were identified (see the Events and enforcement section) as well as a number of other opportunities for improvement. These will be followed up in our visit to site in February along with

meetings regarding site decommissioning and waste projects.

- The works on site to remediate the legacy diesel contamination has been completed to our satisfaction.
- We responded to the Somerset County Council consultation on the planning application for the planned Interim Storage Facility (ISF) that will be used to store Intermediate Level Waste (ILW). We have also had dialogue with Magnox on the forthcoming planning application for the Modular Intermediate Level Waste Encapsulation Plant (MILWEP), which will be used to encapsulate ILW into Robust Concrete Boxes (RCBs) for interim storage on site.
- We continue to monitor the progress of the project to remove the remaining residues from the site storage tanks as well as the other waste projects on site, such as the sludge and resin tanks consolidation and the Fuel Element Debris projects.

## Hinkley Point B

Our work at Hinkley Point B (HPB) has been focussed on the following themes and issues in the last quarter:

- In November we carried out an inspection focused on liquor management in the spent fuel ponds. No significant issues were identified during this inspection, however we contributed our regulatory opinion on one minor finding. The operator had developed a better approach to pond chemistry adjustments but this had not been formally documented.

<sup>[1]</sup> <https://www.gov.uk/access-the-public-register-for-environmental-information>

- In January we carried out a joint inspection with the Officer for Nuclear Regulation focused on solid and gaseous radioactive waste systems. No significant issues relating to permit compliance were identified during the inspection.
- In January we also reviewed the operator's compliance with the Control of Major Accident Hazards Regulations (COMAH). These regulations are aimed at ensuring that certain hazardous substances are appropriately stored and that emergency arrangements are in place. We enforce these regulations jointly with the Office for Nuclear Regulation. We noted that the majority of infrastructure works on secondary containment are now complete; the outstanding works are planned for 2017.

### Events and enforcement

In January 2017 we issued HPA with a Warning Letter as a result of findings from the inspection we conducted in November 2016 on management of 'Out of Scope' wastes.

In this inspection we identified that the site had not updated clearance monitoring procedures in the light of new radiological fingerprint data being available. This meant that for a period of 9 months the site was in a position where there was the potential for low level radioactive waste to be consigned as conventional waste. Appropriate steps were taken at the site at our request to ascertain the implications of this finding. Fortunately, after a review by site (which we have assessed) it has been concluded that no waste was wrongly consigned. The site has also undertaken its own full investigation into the failure and has identified a range of actions to be undertaken. These along with the actions from our own inspection are being closely monitored to ensure the site brings itself back into compliance.

We expect high standards from the nuclear industry. When a company fails to meet these we will investigate, ask for improvements and take appropriate enforcement action.

No enforcement action has been necessary at Hinkley Point B.

### Discharge reports

The operators at Hinkley Point A and B are required to report liquid and gaseous discharges to the environment to us on a regular basis. We assess these to check compliance with the site permits. The site discharge reports and our assessments are placed on the public register and a digest of information is available via the Environment Agency application 'What's in your backyard?' facility <sup>[2]</sup>.

Liquid and gaseous discharges from Hinkley Point A and B were within the permitted limits and notification levels during this period.

### Environmental impact

Nuclear sites are required to carry out a rigorous environmental monitoring programme that requires the operator to monitor and assess the impact of their discharges on the environment.

Additionally, the Environment Agencies and Food Standards Agency carry out independent environmental monitoring around nuclear sites. The results of this work are published in our annual Radioactivity in Food and the Environment (RIFE) report.

In the RIFE report the Hinkley Point sites are considered together for the purposes of environmental monitoring because the effects of both are on the same area. The report presents a yearly assessment of radiological dose to the group of people in the local population who are most exposed to radiation from the sites. In the latest report for 2015 (RIFE-21)<sup>[3]</sup>, the total radiation dose to this group of people as a result of discharges and radiation shine from the sites was very low at 0.016 mSv/year. This is about 2% of the Government dose limit of 1 mSv/year and an even smaller percentage of the average amount of radiation we all receive from natural sources, which is approximately 2.2 mSv/year.

<sup>[2]</sup> <http://apps.environment-agency.gov.uk/wiyby/default.aspx>

<sup>[3]</sup> <https://www.gov.uk/monitoring-radioactivity>

## Responding to the Stop Hinkley group

Our routine programme of environmental monitoring is designed to provide additional reassurance that the operators' environmental monitoring programmes are providing valid results. This, together with our regulation of emissions from the site, ensures that radiological doses to the most exposed members of the public continue to be low.

Following our meeting with the Stop Hinkley group in October 2015, we undertook additional sediment sampling in the River Parrett in the March and August of 2016. The samples taken were analysed for radioactivity in the same way as our routine environmental monitoring samples. Particle size analysis was also carried out and this has provided useful information on grain size and the origin of the sampled sediments.

We have now updated our initial short report provided to Stop Hinkley with the August 2016 data. The results from both sampling campaigns show that the activity of Caesium-137 decreases with distance from the river mouth going inland. This is consistent with increasing grain size and decreasing influence of marine sediment with distance from the mouth of the river. Our report concludes that the results obtained are consistent with historic data on radioactivity in the environment around Hinkley Point and are therefore consistent with our assessment that even the most exposed member of the public only receive a very low theoretical radiation dose from the operations at Hinkley Point.

### 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 section<sup>[4]</sup> of the GOV.UK website.

<sup>[4]</sup> <https://www.gov.uk/government/publications/nuclear-regulation-in-the-environment-agency>

The Environment Agency's Lead Regulator for the Hinkley Point A site is Robert MacGregor. The Environment Agency's Lead Regulator for the Hinkley Point B site is Richard Lee.

Robert and Richard are both Nuclear Regulators and part of the national Nuclear Regulation Group (South) which is based at the Environment Agency's Wallingford office in Oxfordshire.

Robert and Richard undertake environmental regulation of radioactive substances on nuclear licensed sites in southern England. They work closely with the local Environment Agency teams in those areas as well as external bodies such as the Office for Nuclear Regulation.

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