

## Introduction

This report covers the Environment Agency's regulation of Hinkley Point A & B nuclear sites and related issues for the period February to May 2015.

## 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 permit 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 maintained 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 has been focussed on the following themes and issues in the last quarter:

- Remediation/containment of the historic diesel contamination on the site to ensure that it is not adversely affected by Hinkley Point C (HPC) site dewatering. We believe that delays to the start of dewatering at the HPC site present an opportunity for the diesel to be remediated rather than to be contained and we are engaging the site accordingly.
- In March, we conducted an inspection on the management of liquid radioactive effluent. This looked at aspects such as procedures, recent events and included plant inspections. Reactor 1 pond is

expected to be drained this year and as a result, liquid discharges from the site should reduce in future (Reactor 2 pond is already drained). Arrangements were found to be satisfactory but a number of recommendations were made.

- In April, we met with Magnox and the Office for Nuclear Regulation to discuss the latest progress with the Fuel Element Debris characterisation project.
- In April, we attended the Annual Review of Safety and Environment meeting at the site. This discussed the site's performance over the previous year and the work programme for the coming year.
- In May, Magnox supplied us with the documents justifying the planned changes in Waste Strategy for ILW across the Magnox fleet. These documents are now being assessed and we expect to feedback to Magnox on these by July.
- We continue to monitor the progress of the project to remove the residues from the site storage tanks.

## Hinkley Point B

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

- In March, we carried out a joint inspection with ONR to review solid radioactive waste management during the reactor 4 outage. Due to the volume of maintenance work being carried out, an outage provides additional waste management challenges to the operator. We found that the standard of waste management was high. The additional outage pressures were having very little negative impact on the effective management of solid radioactive waste.
- In March, we reviewed the operator's annual report for the combustion activities environmental permit. This permit covers

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

non-radioactive exhaust emissions from standby gas-turbines and other auxiliary plant. We found that discharges were within expected ranges. We noted that the operator continues to pursue a policy of minimising the use of gas turbines and auxiliary boilers, thereby minimising their emissions.

- In April, we carried out an inspection focussed on liquid radioactive waste systems. Inspection and maintenance, waste minimisation and staff competence were included in our review and found to be satisfactory. The operator also notified us of a defect with gaseous sampling equipment on one of the smaller discharge routes. The defect occurred following routine maintenance. This resulted in gaseous emissions being underestimated by about 5% in March. We noted a minor non-compliance against the permit. The defect was promptly fixed. We have asked the operator to take steps to ensure that all discharge sampling equipment is returned to service in an acceptable condition. We are satisfied with the operator's response to this event.
- In May, we participated in a Quality Assurance audit carried out by EDF Energy's head office function. This allowed us to assess how EDF Energy assesses compliance with its own management arrangements, which in turn ensure compliance with the permits that we issue. We found that the audit provided an appropriate level of challenge to the station. It provided us with reassurance that EDF Energy's internal audit arrangements are suitable.
- We participated in 'Exercise Blackbird 3' on 09 June 2015. This exercise included mobilisation up to central government level. It successfully tested the ability of the site and other organisations to respond to an off-site nuclear emergency. Our main role in such scenarios is to advise on possible contamination of surface waters and disposal of wastes.

## Magnox staff reductions

Magnox Ltd has recently announced the intention to reduce the staff on its nuclear sites in England, Wales and Scotland by around 1500 posts from the present total of around 4500 staff (including contractors).

A standard requirement of each of our permits is for operators to demonstrate that they have suitable and sufficient resources to deliver compliance with our permits. Similarly, to notify us of any changes that may significantly affect these resources.

We continue to work closely with Magnox to understand the implications of the proposed reduction in workforce and to ensure that compliance will continue to be delivered, ensuring proper protection of people and the environment.

## Events and enforcement

As noted above, we recorded a 'C4' non-compliance with the permit at Hinkley Point B in April. This is our lowest form of non-compliance and signifies a breach that has no potential environmental effect. We noted a non-compliance as we felt that the operator's procedures for returning plant to service required improvement. We gave the operator advice and guidance and are satisfied that they are taking appropriate steps to prevent a re-occurrence.

## 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>.

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

Liquid and gaseous discharges from Hinkley Point A and B were well 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 annually in the report “Radioactivity in Food and the Environment” (RIFE-19)<sup>[3]</sup>.

In RIFE-19, the Hinkley Point sites are considered together for the purposes of environmental monitoring because the effects of both are on the same area. The RIFE 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 2013, the total radiation dose to this group of people as a result of discharges and radiation shine from the sites was very low at 0.022 mSv. The 0.022 mSv/year radiation dose is far below the Government Dose limit of 1 mSv/year and even smaller compared to the average amount of radiation we all receive from natural sources each year which is around 2.2 mSv/year.

We have recently reviewed our environmental monitoring programme for each of the nuclear sites in England to ensure they remain consistent with our published guidance<sup>[4]</sup>. Our review of the programme at Hinkley Point concluded that the programme meets most of the relevant objectives of our guidance.

We have added grass sampling to the Hinkley Point programme. We have chosen to add this to provide improved validation of the operator’s own environmental monitoring for deposition from gaseous discharges. All other

sampling locations will be retained, although we may make changes to how frequently we sample them.

We are in the process of agreeing the final programme and will provide further information at the next Site Stakeholder Group meeting.

### 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>[5]</sup> of the GOV.UK website.

The Environment Agency’s Lead Regulator for the Hinkley Point A site is Robert MacGregor. Tim Fediw is the Lead Regulator for Hinkley Point B.

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

<sup>[4]</sup> <https://www.gov.uk/government/publications/environmental-radiological-monitoring>

<sup>[5]</sup> <https://www.gov.uk/government/publications/nuclear-regulation-in-the-environment-agency>