

Environment Agency Report to the Winfrith Site Stakeholder Group

01 November 2018

Introduction

This report covers the Environment Agency (EA) regulation of the Magnox Winfrith nuclear licensed site and site tenant (Tradebe-Inutec) from April 2018 to November 2018.

Radioactive substances regulation

Regulation

We regulate radioactive waste disposals. We do this through environmental permits that contain limits and conditions aimed at minimising wastes and protecting the environment. We check compliance with the permit by site inspections and documentation reviews. Radioactive Substances Compliance Assessment Reports (RASCAR) detailing our inspections, are entered into the Public Register. We also review discharge and environmental monitoring reports submitted to the Environment Agency by the site operators at intervals specified in their permits.

Site inspections

Harwell and Winfrith sites share similar management arrangements and senior leadership team. Wherever possible, we consider the cultural practices applied at both sites to identify opportunities for improved working or good practice.

Since the last Site Stakeholder Group meeting in April 2018, we have undertaken site-based inspections shown below.

- A 2-day joint inspection with the Office for Nuclear Regulation (ONR) covering arrangements for the management of radioactive waste.
- An inspection of environmental monitoring work relating to land quality management and groundwater monitoring.
- A Low Activity Waste inspection focussed on the local practices at Winfrith and joint management arrangements covering both the Harwell and Winfrith sites.
- An inspection of Tradebe-Inutec that included review of the waste handling and processing facilities.

- With the ONR, we reviewed the development of a number of management arrangements relating to the transport of radioactive waste.

There were no non-compliance issues noted during these inspections and we have provided advice and guidance on observed practices.

We continue to meet Magnox and Tradebe-Inutec and maintain regular review telephone conference calls to discuss site progress and compliance issues at the tenant site.

Regulatory resources remain heavily focussed on the planning and development requirements for Winfrith site-wide decommissioning and restoration work, and separately, progress on the tenant site (Tradebe-Inutec) as it seeks to gain an independent nuclear site permit.

Other site meetings

We have continued to work closely with the ONR and other stakeholders (Local Authority -Town and Country Planning teams) to develop the wider aspects of site remediation and restoration plans.

In July, the UK environmental regulators (Environment Agency, Natural Resources Wales (NRW) and Scottish Environmental Protection Agency (SEPA)) published joint guidance to the industry, on Requirements for Decommissioning Nuclear Sites (GRR). This facilitates the application of a range of options for managing waste during the final stages of decommissioning. The document is available from the SEPA web site¹.

Magnox Winfrith will continue to progress decommissioning and restoration at Winfrith as one of the key GRR pilot sites across the UK-to aid the development of a structured approach to the regulation of a site to reach an Interim End State.

Whilst there is clearly a lot of engineering and civil work required to meet a proposed Interim End State of 2023, subject to development of a wider communications plan, we consider the site's arrangements are adequate for this stage in the process.

We continue to review progress with the programmed decommissioning work. This has included regular meetings (jointly with staff from the ONR) to cover Intermediate Level Waste (ILW) retrievals from SGHWR, and Dragon reactors; and

¹ <https://www.sepa.org.uk/media/365893/2018-07-17-grr-publication-v1-0.pdf>

associated treatment and storage pending future off-site disposal.

In addition, we have met the operator to ensure that Magnox-Winfrith develops an appropriate Materials Management Plan to manage the generation and storage of construction and demolition type wastes derived from the removal of buildings on the site (as part of an overall decommissioning plan).

We have continued to meet with Tradebe-Inutec to consider its progress in achieving an independent nuclear permitted site. We are also continuing to meet both Magnox and Tradebe-Inutec to consider separation of site infrastructure and facilities.

Permitting

In October 2018, we received a joint permit transfer application from Magnox Winfrith and Tradebe-Inutec (as a tenant site) to transfer land and operational responsibility for an area of the Winfrith site which is currently under the responsibility of the Magnox site.

This will allow Tradebe-Inutec to continue operating after the closure of the Magnox site. We are working closely with ONR to ensure permitting and Nuclear Site Licensing happen concurrently. We intend to include a public participation statement and aiming to complete our determination of the permit application by April 2019, to coincide with the issue of any nuclear site licence, by ONR.

Incidents and enforcement

We have received details of a spreadsheet error that resulted in accounting inaccuracies in a small number of wastes historically transferred off the Winfrith site to permitted facilities elsewhere, for disposal.

At the corporate level, Magnox has identified the use of calculation spreadsheets as an area of high business risk and is developing a range of measures to protect the integrity of spreadsheets used for accountancy purposes.

In the case of the Winfrith site, we do not consider the accounting errors have caused any environmental impact and we consider that the waste was sent to an appropriate site for disposal. The consigned waste did not breach the receiving sites' waste acceptance criteria.

On the basis of work being done by the wider Magnox Company, we will review the details of the Winfrith error against our Compliance Classification Scheme, once the wider Magnox

corporate work has been completed. We will report our findings at the next SSG.

There have been no other events reported to us in this period.

Discharge reports

Both Winfrith and Tradebe-Inutec are required to report liquid and gaseous (atmospheric) discharges to the environment on a quarterly basis. Limits are set in the permits to control the maximum level of radioactivity that can be emitted to atmosphere or to controlled waters over any rolling twelve month period.

Liquid effluent discharged to the sea at Arish Mell from both Winfrith and Tradebe-Inutec via the ALES system remain well below permit limits, approximating to between 10-12% of the permitted limit set for the site.

Gaseous discharges also remain compliant and well below permitted limits approximating to 2-3% of the permitted limit for the site.

Environmental monitoring

Winfrith site undertakes a programme of monitoring of radioactivity in the environment. Results from this programme are used to assess the site's impact on the environment.

The Environment Agency carries out independent environmental monitoring, and together with data collected by the Food Standards Agency is used to calculate the dose to the public at all nuclear sites in England and Wales. Results are presented in the "Radioactivity in Food and the Environment" Report (RIFE)². The latest edition of RIFE (RIFE 23) has now been published.

The environmental reporting from site and corroborated evidence through our independent monitoring and data presented in the latest RIFE document, indicates that the discharge derived exposure to individuals and members of the public (from permitted liquid or gaseous emissions) remain very low and broadly similar to previous years, approximating to less than 1% of the of the national dose limits-set to protect members of the public.

Looking ahead

We will continue to work closely with the NDA, other regulators, stakeholders (for example, Local Authorities) to assess Magnox plans.

The resources required to regulate the site during the next phase of decommissioning will remain at

²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/750730/Radioactivity_in_food_and_the_environment_2017_RIFE_23.pdf

levels equivalent to those allocated within this financial year.

We will continue to work with the ONR to enable Tradebe-Inutec to attain its goal of a nuclear site licence in 2019, while maintaining appropriate regulatory controls and minimising the impact on the environment.

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 ^[3].

The Environment Agency's lead Nuclear Regulator for the Magnox Winfrith site is Adam Davis. Tim Fediw regulates Tradebe-Inutec. Adam and Tim are part of the national Nuclear Regulation Group (South).

Note: Members of the local Environment Agency team cover the site for other general (non-radioactive substances) environment protection matters such as regulation of groundwater, contaminated land, waste management and water abstraction. Contacts for these activities can be arranged through Adam Davis.

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