

Sizewell Sites Stakeholder Group Report

This report covers the Environment Agency's regulation of Sizewell A & Sizewell B nuclear sites and related issues for the period January 2022 to May 2022.

Our Regulation

We regulate radioactive waste disposals and discharges 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 a variety of regulatory activities to check for compliance with our regulatory requirements, including site inspection, review of documents and arrangements and any reports of events.

Details of our assessments and any non-compliances identified are included in Radioactive Substances Compliance Assessment Reports (RASCARs), which are placed on our public register. See the 'further information' section at the end of this document to find out how to request documents from our public register.

We regulate and control other activities through our environmental permits, including surface water discharges to surrounding water bodies and emissions to air from emergency diesel generators. We are also the joint competent authority, alongside the Office for Nuclear Regulation (ONR), for the Control of Major Accident Hazard (COMAH) regulations that apply to Sizewell B.

Nuclear regulation operational update

In March 2022, the chairs of the Environment Agency, the ONR, and the Health and Safety Executive (HSE) took part in a planned visit to the Sizewell B and prospective Sizewell C sites. The visit was part of a routine engagement programme that takes place between the chairs where they discuss topics of mutual interest and collaboration. Further information is available at: <https://news.onr.org.uk/2022/03/three-uk-regulators-in-joint-chairpersons-nuclear-site-visit/>

Site Regulation

Sizewell A

We continue to hold monthly meetings with Magnox to discuss work underway at Sizewell A that has an environmental impact. We review routine reports produced by Magnox including discharge reports and event reports. We attended the annual review of safety, security, and the environment (ARRoSSE) for sites in south-east England, held at Sizewell A.

In March we carried out a joint inspection with ONR on solid waste management arrangements at Sizewell A, concentrating on waste minimization, minimizing secondary waste generated while waste is in storage, and the site's plans for waste retrieval. We did not identify any non-compliances during this inspection.

We met with Magnox staff in May to discuss the implementation of the Magnox Sustainability Strategy at Sizewell A.

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Sizewell B

Alongside our inspection programme, we have maintained bi-weekly telephone and regular email contact with EDF, and routine review of returns. In April 2022 we carried out an inspection of gaseous effluent management, sampling, and discharge at Sizewell B. It indicated that gaseous wastes continue to be appropriately managed and minimised at the site. Sampling arrangements ensure that EDF-NGL understands the gaseous discharges from the site and is able to comply with the conditions of its permit. The plant and facilities visited were in good condition, and the operational staff demonstrated detailed understanding of arrangements, responsibilities, and permit compliance. No non-compliances were identified.

We were made aware of the reactor automatic shutdown on 18 April 2022. During post-shutdown operation of the Power Operated Relief Valves (PORV), steam is released from the secondary circuit to maintain steady plant conditions. Trace amounts of tritiated water may be present in the steam, which EDF is able to discharge under a minor outlet specified in the permit. Discharges from all minor outlets combined must be less than 5% of the relevant annual limit for all outlets. EDF calculations estimate the tritium associated with the steam release to be <0.13% of the total gaseous tritium discharge from the site for April 2022.

In May 2022 we carried out an inspection of liquid effluent management, sampling, and discharge at Sizewell B. We also carried out a joint inspection with the ONR on training and individual site authorisations. We are currently reviewing our assessment in these areas, but the inspections did not present any significant concerns. Following a previous liquid system inspection, we asked EDF to review oil interception capability within the liquid radioactive system. We are satisfied that the subsequent review provides a long-term assessment of oil management and that the risk is better understood by the operator.

We require the operator to submit information in relation to disposals of radioactive waste. EDF submitted a report on efforts to reduce radioactive waste disposals in 2021. We found the report to demonstrate that waste is minimised, and Best Available Technique (BAT) is applied at Sizewell B in the management and disposals of waste. EDF also supplied annual reports as to testing of filters used to reduce discharges of gaseous wastes during 2021. The reports demonstrated that filters were appropriately tested and managed at Sizewell B during 2021.

Enforcement

We have not taken any enforcement actions at Sizewell A or Sizewell B in the period since the previous SSG meeting. The operators have remained compliant with the requirements of their permits, or with the requirements and standards of our Regulatory Position Statements, where applicable and in use.

Environmental Permitting

Sizewell A

There have been no changes to Magnox's Sizewell A radioactive substance permit in the period since the previous SSG meeting. No changes are planned in the near future.

A minor variation to the site's water discharge activities permit was made to extend by three months the date for certifying the flow meter measuring discharges from the sewage treatment plant. The flow meter has now received its MCERTS certification.

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Sizewell B

There have been no changes to EDF's Sizewell B permits in the period since the previous SSG meeting. No changes are planned in the near future.

Discharge Reports

The sites' environmental permits require the operators to use BAT to manage their operations and ensure their impacts on the public and wider environment are minimised. Disposal of wastes – as solids, liquids, or gases – can only be made via permitted routes or by transfer to permitted sites. Magnox and EDF are required to report liquid and gaseous discharges to the environment to us on a regular basis. These reports are placed on the public register. We examine these reports and detail our assessment of their performance through RASCARs.

Sizewell A

At Sizewell A Magnox are required to report liquid and gaseous discharges to the environment to us on a quarterly basis, within 30 days of the end of the quarter. Reports received in January and April 2022, covering the reporting period October 2021 to March 2022 showed that all liquid and gaseous discharges from Sizewell A were at levels well within permitted limits.

No discharges were made via the main radioactive effluent route during the reporting period.

Low volumes of treated effluent were discharged from the sewage treatment plant, which serves both Sizewell A and Sizewell B sites. The plant is managed by Magnox. Effluent is monitored at quarterly intervals for the presence of tritium or caesium-137. No radioactivity above limits of detection was reported in samples taken during the period covered in this report.

Variations in gaseous discharges from Sizewell A are small as the reactors are now “breathing” passively - There is no forced flow of air through the reactors. Discharges are low and follow a seasonal pattern.

Sizewell B

Liquid and gaseous discharges from Sizewell B have remained within permitted limits for the period October 2021 to March 2022, and returns were submitted to us within the required timescales. 12-month cumulative gaseous discharges of carbon-14 remained less than 62% of the annual limit, with other gaseous discharges less than 16% of respective annual limits. Liquid discharges were in-line with expected levels and remain well below annual limits.

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 Sizewell sites are considered together for the purposes of environmental monitoring.

The monitoring data for the calendar year 2020 was published in RIFE report 26 (RIFE 26) in November 2021, and can be found at:

<https://www.gov.uk/government/publications/radioactivity-in-food-and-the-environment-rife-reports>

For Sizewell, the total dose for the representative person was 0.017mSv in 2020. This corresponds to less than 1% of the average dose across the UK population of 2.7mSv, received from all sources including from natural radiation and medical sources.

In parallel to this programme, the operators are required to carry out their own programme of environmental monitoring and to submit the results of this programme to us on a periodic basis. This is carried out jointly by Magnox and EDF. The results continue to be consistent with our independent programme, and do not indicate any concerning results or trends. We make the information from both operator and our own environmental monitoring programmes available on our public register.

Further Information

The Environment Agency's Nuclear Regulation Group (South) (NRG(S)) is responsible for the environmental regulation of radioactive waste disposals on or from nuclear licensed sites in southern England and Wales. We work closely with local Environment Agency teams as well as external bodies such as the Office for Nuclear Regulation.

The Environment Agency's Lead Regulators for the Sizewell A and B sites are Peter Reynolds and Alex Lord, respectively.

NRG(S) Address	Environment Agency, Nuclear Regulation Group, Red Kite House, Howbery Park, Wallingford, Oxfordshire, OX10 8BD
Email	nrg.south@environment-agency.gov.uk
Local Office Address	Environment Agency, Icen House, Cobham Road, Ipswich, Suffolk, IP13 9JD

A public register service is available on the GOV.UK website at:

<https://environment.data.gov.uk/public-register/view/index>

Alternatively you can request access to public documents directly by contacting the Customers and Engagement Team in the Wallingford office. Please email:

WTenquiries@environment-agency.gov.uk

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 pages of the GOV.UK website at:

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

Our enforcement and sanctions policy is publicly available on the GOV.UK website at:

<https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy/environment-agency-enforcement-and-sanctions-policy>

Public Health England has placed guidance on ionising radiation dose comparisons on the GOV.UK at:

<https://www.gov.uk/government/publications/ionising-radiation-dose-comparisons>

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