

Environment Agency Report to the Sizewell Site Stakeholder Group

September 2025

This report covers the Environment Agency's regulation of Sizewell A & Sizewell B nuclear sites and related issues for the period May 2025 to September 2025.

Our Regulation

We regulate solid radioactive waste disposals, aqueous and gaseous 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 but not limited to 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.

Information on environmental permits and our regulation of the Sizewell sites can be found at: <https://www.gov.uk/guidance/sizewell-nuclear-regulation>

Site Regulation

Sizewell A

We continue to hold monthly meetings with Nuclear Restoration Services (NRS) to discuss the work taking place on site that could have an environmental impact. We also review quarterly gaseous and aqueous discharges and environmental monitoring returns.

On 4 June 2025, we inspected the management of non-radioactive and very low-level radioactive wastes produced on site. This included an assessment of the wastes produced by the Turbine Hall demolition project, including management of the resultant non-radioactive waste stockpiles. We were accompanied by colleagues from the local area

customer service line
03708 506 506

incident hotline
0800 80 70 60

floodline
03459 88 11 88

Environment Agency Waste Team to support the non-radioactive waste aspects of the inspection. We identified that NRS has an effective management system and on-site arrangements to achieve compliance with the permit conditions relating to managing non-radioactive and Lower Activity radioactive wastes. We highlighted as good practice the time taken by NRS to ensure its principal contractor had the necessary non-radioactive waste competencies. This meant waste was correctly handled and transferred off-site.

On 23 September 2025, we will be inspecting the management and disposal strategy for the radioactive waste pond skips on site. This will include a review of the following:

- The number of skips being processed.
- An assessment of the treatment process and disposal routes.
- The planned timescale for the treatment and disposal campaign.

A summary of our findings will be provided at the next SSG meeting.

Sizewell B

Alongside our inspection programme, we have maintained bi-weekly telephone and regular email contact with EDF, and routine review of returns.

As noted in the previous SSG we carried out an inspection focusing on solid waste on 25th March 2025. Following the inspection, we received additional supporting information demonstrating that solid radioactive waste at Sizewell B continues to be managed in a way that is optimised and minimises the activity and impact of waste disposals. We didn't identify any non-compliance issues during the visit. We made three recommendations relating to company procedures and identified evidence of good practice. We will update the SSG at the next meeting on our progress on the recommendations.

On 23rd July 2025 we carried out an inspection focusing on notification of environmental events and how EDF shares operational experience (OPEX) and learnings across their fleet. During the inspection we identified areas of good practice (relating to equipment identification) and made five recommendations relating to management procedures and the process for sharing the learning from the previous duct corrosion issue (reported in previous SSGs). We confirmed that containment systems for the Emergency Diesel Generators are in good condition and maintained in line with management systems. During the inspection we didn't identify any non-compliance issues.

Enforcement

Sizewell A

We have not taken any enforcement actions at Sizewell A in the period since the previous SSG meeting (21 May 2025). The operator has remained compliant with the requirements of their permits.

Sizewell B

As noted in the previous SSG EDF notified us and promptly rectified on a corrosion issue with a small section of post-infiltration gaseous waste ducting in which some treated effluent was leaking (the volume and release of the radioactivity was negligible). As a result of the event, we believe that EDF was not compliant with Sizewell B's environmental

permit conditions (ref: EPR/XB3529DH). Following our compliance assessment, we concluded that the appropriate regulatory action in line with the Environment Agency's Enforcement and Sanctions Policy is issuing a warning letter. The warning letter was issued to EDF on 30th May 2025. We now consider this matter closed and do not intend to take any further enforcement action unless repeat incidences occur.

Environmental Permitting

Sizewell A

On 5 August, we varied NRS's Sizewell A Radioactive Substances Regulation Environmental permit. This was to consolidate minor changes such as removing references to gaseous disposal outlets which have not been present for some years and changing the description for the main aqueous outlet as the large final delay tanks are being replaced with a single smaller tank. The variation has not changed any gaseous, aqueous or solid disposal routes or limits.

Sizewell B

We received a joint partial permit transfer application from Sizewell B (EDF Energy Generation Limited) and Sizewell C Limited, to transfer an area of land, currently within the Sizewell B boundary, from EDF to Sizewell C Ltd's permit. There will not be any changes to permitted waste types, disposal outlets, disposal routes and discharge limits as a result of the partial permit transfer.

Discharge Reports

The sites' environmental permits require the operators to use Best Available Techniques (BAT) to manage their operations so that wastes are minimised along with their impacts on the public and wider environment. Disposal of wastes – as solids, liquids, or gases – can only be made via permitted routes or by transfer to permitted sites.

NRS and EDF 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. These reports are placed on the public register. We examine these reports and detail our assessment of their performance through RASCARs.

Sizewell A

For Sizewell A, NRS reports received in July 2025, covering the reporting period April to June 2025 (inclusive) showed that gaseous discharges from Sizewell A were at levels well within permitted limits. No aqueous active effluent discharges to the North Sea were made during this reporting period. The last aqueous discharge was made in November 2024.

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 NRS. Effluent is monitored at quarterly intervals for the presence of tritium and caesium-137. No radioactivity above limits of detection was reported in samples taken during the period covered in this report.

Gaseous discharges from Sizewell A are very low compared to when the site was operational (pre-2007). Gaseous discharges are fairly constant as the site's reactors are now "breathing" passively. This means there is no forced flow of air through the reactors

and discharges follow a seasonal pattern across the year influenced by barometric pressure, and weather conditions.

Sizewell B

Liquid and gaseous discharges made from Sizewell B permitted routes have remained within permitted limits between April 2025 to July 2025, and returns were submitted to us within the required timescales.

The 12-month cumulative gaseous discharges of carbon-14 remained less than 67% of the annual limit, with other gaseous discharges less than 13% of respective annual limits. The 12-month cumulative liquid discharges were in-line with expected levels and remain less than 34% of the annual limit for tritium, and less than 9.5% for caesium-137 and other radionuclides.

No quarterly notification levels (QNLs) were exceeded for gaseous or aqueous discharges. Liquid tritium discharges increased in June 2025 (when compared to the previous months). This was attributed to the unplanned reactor trip in June 2025; increased liquid radioactive waste is generated as a result of dilution of the primary coolant required to bring the reactor back up to full power. We reviewed subsequent returns for July 2025 and confirmed that that tritium discharges reduced following the reactors return to service (this aligns with the cyclic trend of discharges following the station fuel cycle).

Environmental Monitoring

Radioactivity in food and the environment report

Our annual report for 2023 was published in November 2024 on GOV.UK [Radioactivity in food and the environment \(RIFE\) report](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/123456/rife-report-2023.pdf) - GOV.UK (www.gov.uk)

This report gives a detailed assessment of radioactivity in food and the environment and the public's exposure to radiation during a 2023. It shows that the public's exposure to permitted discharges and direct radiation near nuclear and non-nuclear sites is low and within dose limits.

For Sizewell, the total dose for the representative person was less than 0.010mSv in 2023, down from 0.011mSv in 2022, and less than 1% of the government derived limit to protect members of the public. Levels of radioactivity found in the environment remain low.

Our annual report for 2024 is due to be published in November 2025.

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 conducted jointly by NRS and EDF.

In June 2025, we received the environmental monitoring reports covering the period from January to March 2025 (inclusive).

Sizewell A

The reported results are consistent with our independent programme and do not indicate any results or trends of regulatory concern. We make the information from both operator and our own environmental monitoring programmes available on our public register.

Sizewell B

We received the results of the EMP for the period between January 2025 to March 2025 (inclusive). Following the review of the EMP report we note that one of the passive shades located within the site boundary (TF102) was not sampled for the 1st quarter of the EMP in 2025 due to a faulty mast. We have reviewed the EMP results for the other passive shades in closest proximity to the unsampled location, which confirmed the activity on each shade to be below the minimum detectable activity of the laboratory analytical equipment.

The Operator has confirmed that the faulty mast has now been repaired and sampling at TF102 commenced for 2nd quarter of EMP.

The results of the EMP indicate radioactivity in the environment remains below regulatory concern and demonstrates the effectiveness of the Operator's programme and analysis in identifying and informing results of interest. The results continue to be consistent with our independent programme and do not indicate any other concerning results or trends.

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. We also support NRW in this role in 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 Sizewell A and Sizewell B are James Heavingham and Themis Kantara.

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

For regular updates on our work in regulating radioactive substances and nuclear sites visit our LinkedIn page:

<https://www.linkedin.com/showcase/regulating-radioactive-substances>

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 how we regulate different types of nuclear sites, and protect people and the environment is available on the GOV.UK website at:

<https://www.gov.uk/guidance/nuclear-sites-environmental-regulation>

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>

Our public participation statement on when and how we consult on permit applications is available here:

<https://www.gov.uk/government/publications/environmental-permits-when-and-how-we-consult>

UK Health Security Agency has placed guidance on ionising radiation dose comparisons on the GOV.UK website at:

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

All our open consultations will appear on this webpage [Nuclear consultations - Environment Agency - Citizen Space \(environment-agency.gov.uk\)](https://www.environment-agency.gov.uk/nuclear-consultations)

National news items

Public consultation now closed: Regulation of solid radioactive waste disposal facilities - proposed guidance

The Environment Agency, NRW and NIEA consulted on proposals to update the guidance on how we regulate near surface and geological disposal facilities between November 2024 and February 2025. The draft guidance documents explain what an operator must show us to obtain an environmental permit or permits for such a radioactive waste disposal facility. The draft guidance we consulted on consists of:

- Disposal facilities for solid radioactive waste: guidance on the requirements for authorisation (GRA)
- Guidance on staged regulation

The consultation on the draft GRA applied to England, Wales, and Northern Ireland. There is a separate consultation on a version of the [GRA for Scotland](#) which closed on 12 May 2025.

The consultation on our staged regulation guidance is for England only.

The documents are still available to read.

GOV.UK [Regulation of solid radioactive waste disposal facilities: proposed guidance - GOV.UK](#)

Consultation response page [Guidance on the requirements for authorisation and staged regulation for the disposal of solid radioactive waste - Environment Agency - Citizen Space](#)

We are now carefully considering all the relevant information we received during consultation, together with existing information. We will publish a summary of relevant responses made during this consultation in the summer of 2025. We aim to publish our new guidance in 2026.

Nuclear new build – early engagement guidance – Published June 2025

We've published new guidance for developers and designers of new nuclear power stations who ask for a 'tier 3 preliminary design review (PDR)'. It complements guidance we published in March 2024 which sets out our early engagement process and how applicants can engage with regulators prior to entering generic design assessment or environmental permitting – or the ONR's site licensing process.

We'll provide technical advice and guidance on our expectations for new reactor designs, potential acceptability for deployment, and the routes to regulatory approval.

This joint guidance developed by the Environment Agency, ONR and NRW has been published on the joint [GDA webpages on ONR's website](#).

Last Energy Preliminary Design Review report – Published 29 July 2025

Last Energy is proposing to build four microreactors at its Llynfi site in south Wales and has been working with the UK's nuclear regulators through our new innovative review process for reactor designers.

The company entered the regulators' early engagement process in May 2024, taking part in three technical workshops with teams from the Environment Agency, Office for Nuclear Regulation and Natural Resources Wales. It then began the Preliminary Design Review (PDR) part of this new process in February 2025.

During the PDR we focussed on three submissions relating to Last Energy's PWR-20 nuclear reactor design and its UK organisational plans: "organisational plans and arrangements", "environmental protection and decommissioning", and "safety analysis processes and maturity".

Last Energy has now become the first company to complete the Preliminary Design Review (PDR).

Tim Fediw, the EA's New Nuclear Sites team leader said: 'The Early Engagement process allows regulators to provide targeted advice on specific aspects of reactor designs at an early stage. Our recent Preliminary Design Review has given Last Energy the opportunity to improve their design, based on feedback we've provided. They are considering the comments we have raised, which will help them develop their design and prepare them for making environmental permit applications in the future.'

The PDR summary concludes that "Last Energy has built confidence in the regulators that it understands regulatory expectations in those three areas and is planning to address them as its design, safety, and environmental cases progress". The summary also notes that PDR is "not a substitute for generic or site-specific design assessment, nuclear site licencing, or environmental permitting processes. Further regulatory assessment of the design, safety, security, and environmental cases by ONR and the environmental regulators will therefore be required."

Next steps: The Environment Agency and NRW's nuclear regulators will be available to continue to advise Last Energy as it develops its design and proposals further. Last Energy has informed the regulators that, at this time, it does not intend to complete a Generic Design Assessment (GDA) but will instead apply directly for nuclear site licensing and environmental permitting for the Llynfi site in south Wales.

Read the report: The joint regulators' executive summary report is published on the ONR's website: [Last Energy PDR Summary Report | Office for Nuclear Regulation](#)

About Last Energy: [Last Energy | 20 MWe SMR | Fully modular, factory made](#)

Nuclear Regulatory Taskforce

In February 2025 Government [announced](#) its plans for nuclear energy, including setting up a review of nuclear regulation.

The Nuclear Regulatory Taskforce is reporting directly to the Prime Minister and is led by John Fingleton. Read about [its role and Terms of Reference](#).

We welcome the Nuclear Regulatory Taskforce's work and this opportunity to help improve regulation in the nuclear industry and to contribute to the government's growth mission through supporting sustainable development.

We are working with the taskforce to help identify and implement improvements that could improve the effectiveness and efficiency of our arrangements and processes.

We submitted a response to the call for evidence. Highlights include:

- Emphasising the strong working relationship with other regulators, particularly the ONR, but also committing to further collaboration on nuclear site regulation.
- Noting the work already happening in response to other Government Reviews (including Corry), where our implementation of their recommendations will have benefits for nuclear regulation.
- Noting the benefits of our non-prescriptive regulatory regime, and how this enables innovation by the sector. Also promoting our joint working with ONR on regulating innovative techniques such as AI, etc.
- Emphasizing the need to maintain focus on the backend of the fuel cycle and to ensure a resilient waste infrastructure.

In August the taskforce published its [interim report](#).

- We acknowledge publication of the Nuclear Regulatory Taskforce's interim report and its preliminary findings and recommendations and welcome the Taskforce's recognition of our role as an expert and independent regulator.
- We note that some of the regulatory challenges identified in the interim report are like those identified in other recent Government reviews (such as by Dan Corry) and ongoing work to address these should also benefit the nuclear sector.
- We look forward to further engagement with the taskforce and providing further input as necessary to help inform the final report conclusions and recommendations.