

Report to Sizewell Site Stakeholder Group

October 2020

This report covers the Environment Agency's regulation of Sizewell A & Sizewell B nuclear sites and related issues for the period between January 2020 and September 2020.

Our 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 check compliance with the permits by making regular inspections at Sizewell A & Sizewell B.

Radioactive Substances Compliance Assessment Reports (RASCARs) detailing our inspections and any non-compliances found are placed on the 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, for the Control of Major Accident Hazard (COMAH) regulations that apply to Sizewell B.

Impact of Covid-19 Countermeasures

Sizewell A

In response to the Covid-19 pandemic, in the week commencing 16 March, Sizewell A site reduced operations and personnel numbers on-site to the minimum needed to complete essential tasks and ensure that the site remained safe and compliant with requirements of the environmental permit. This quiescent period continued until the second week in June, when the process of returning to full operations began following an extensive planning process.

The sewage treatment plant on Sizewell A site serves Sizewell A and Sizewell B. This plant continued to operate throughout the quiescent phase.

The Sizewell A environmental monitoring programme continued without major interruption because it is carried out by EDF staff based at Sizewell B.

During this time we have held weekly teleconferences with site environmental staff, initially to review environmental risk assessments and measures to mitigate environmental impact on for shut-down and later on progress with restart from the quiescent state. We also held weekly meetings with Magnox managers and ONR until the end of July to discuss the status of the three Magnox sites in the South East (Sizewell A, Bradwell and Dungeness A).

On the 29 April we agreed to Sizewell A adopting the Regulatory Position Statement (RPS) C7 and acknowledged their use of RPS C10. This provided some relaxation to the timelines for certain permit conditions relating to discharge monitoring, environmental monitoring and reporting in light of the impact of Covid-19 countermeasures, such as the closure of analytical laboratories used to analyse samples. We agreed arrangements with the site to estimate discharges from certain areas, such as gaseous discharges from the reactor buildings, which would not be accessible during the quiescent phase. These changes do not cause any potential impact to the environment.

We expect that Sizewell A will not need to make further use of the regulatory position statements after 30 September 2020.

Sizewell B

Sizewell B, as a crucial component of the UK electricity grid, has remained operational throughout the period of the response to the coronavirus pandemic. However, those staff who could do so started working from home. Key staff members who support environmental compliance split into teams, working alternate weeks at the power station and from home.

We have maintained telephone (at least weekly) and email contact with Sizewell B. Routine monitoring and reporting of discharges to the environment has continued.

We agreed with EDF sites on 28 April, at a fleet level, to their making use of RPS C7 and acknowledged their use of RPS C10. This extended the normal timescales for analysis and reporting associated with (a) intercomparison testing of radioactive effluent and (b) testing of bulked quarterly samples from 2019. Both of these were affected by the closure of external laboratories arising from the response to the coronavirus pandemic. This use of RPS C7 & C10 at Sizewell B is expected to end before they expire on 30 September.

In addition, for Sizewell B, we agreed on 30 April to their use of RPS C7 for a local issue. We accepted that it was not possible to carry out the normal testing and reporting for some parts of the environmental monitoring programme for reasons related to the response to the coronavirus pandemic. This specific use of RPS C7 ended on 30 June.

Sizewell B reduced electricity output from 7 May to 24 September at the request of the National Grid Electricity Supply Operator, to support grid stability during reduced electricity demand caused by the response to the coronavirus pandemic. This has not materially affected releases to the environment.

Discharge Reports- Summary

The operators at Sizewell A are required to report liquid and gaseous discharges to the environment to us on a quarterly basis. Sizewell B reports at monthly intervals. These reports are placed on the public register.

Liquid and gaseous discharges from both Sizewell A and Sizewell B sites for the most recent reporting period were at levels well within permitted limits.

Sizewell B exceeded Quarterly Notification Levels (QNLs) for discharges of Carbon-14 to air in were exceeded in January, February and March 2020. The Operator reported this as required by their permit. Work to identify the root cause of these exceedances continues, although they have not been repeated.

Current Regulatory Activities

Sizewell A

Inspections.

The Environment Agency cancelled an inspection planned in August. We intend to visit Sizewell A in October instead, to review solid and liquid waste management.

Discharges from site.

No liquid radioactive effluent has been discharged from Sizewell A since the start of the year.

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.

We will continue to monitor discharges and report any issues to the SSG.

Update on measurement of Strontium-90 in marine sediment samples around Sizewell.

Magnox measure Strontium-90 concentrations in marine silt and sediment at two sites (Southwold and Aldeburgh) at quarterly intervals and at three other local sites annually. Quarterly sampling has continued during the Covid-19 period. The Environment Agency monitors Strontium-90 in marine silt and sediment at three locations in the vicinity of Sizewell twice a year.

Recent results have been in line with expectations. In 2019 all results obtained by the Environment Agency were less than the limit of detection. The highest result obtained by Magnox in 2019 was 0.9 Bq/kg dry at Southwold with the majority of results being below the limit of detection.

We will keep the SSG informed of any issues we see in both the Operator’s and the Environment Agency’s environmental monitoring programmes.

Management of Bradwell site.

Bradwell site is now managed and run from Sizewell A. The site is attended by Sizewell A staff, apart from security staff, on an *ad hoc* basis only when required. Security staff are stationed permanently at Bradwell.

The Bradwell SSG plans to continue to meet. We will report on regulatory matters related to Bradwell through this forum while it operates.

Sizewell B

Routine Compliance Inspections

In January we carried out a joint inspection, with the Office for Nuclear Regulation, of arrangements for managing and disposing of solid radioactive waste. We were generally satisfied with arrangements on site. There were no permit non-compliances, but we made recommendations about waste planning and supervision of temporary waste storage areas.

In May, we carried out a remote inspection (by telephone, supported by emailing of documents) of the Operator's compliance with the permit under the circumstances of the response to the coronavirus pandemic. This included resilience in: availability of competent staff, such as Radioactive Waste Advisors; examination, maintenance, inspection and testing of environmental equipment; discharge monitoring and reporting; and the environmental monitoring programme. We were pleased to find that permit compliance had been maintained, with the exception of issues that were within the scope of the agreed use of RPS C7 and C10.

Sizewell B Permit Variation

In response to elevated discharges of Carbon-14 to air (which caused the QNL exceedances noted above) EDF applied to vary its radioactive substances permit. This was specifically to change the limit for discharges of Carbon-14 to air from 500 to 600 Gigabecquerels per year. We are currently determining this application, which includes consultation with the public (and statutory consultees).

The consultation details were provided to the SSG when it started on 19 August; it expires on 1 October. The statutory determination period expires on 1 December but could be automatically extended if we make a formal request for additional information.

Enforcement

Sizewell A

We agreed to the use of RPS until 30 June at Sizewell A on 29 April 2020. We extended these to 30 September as the long lasting impact of Covid-19 on the supply chain and operations at the site became apparent.

We noted no non-compliances other than those covered by a RPS during the period January 2020 to September 2020 at Sizewell A.

Sizewell B

We agreed on 28 April to the use of RPS C7 & C10, originally until 30 June, for some uses at all EDF power stations. This was extended to 30 September due to continuing delays at external laboratories caused by the coronavirus pandemic.

We agreed on 30 April, to the use of RPS C7 at Sizewell B for a specific reason until 30 June.

We did not identify any other non-compliances during the period January to September 2020 at Sizewell B.

Contacts

The Environment Agency's Regulators for the Sizewell A and Sizewell B sites are Peter Reynolds and Richard Lee respectively. Peter and Richard are both Nuclear Regulators and part of the Nuclear Regulation Group (South) which is based at the Environment Agency's Wallingford office in Oxfordshire.

Peter and Richard undertake environmental regulation of radioactive substances on nuclear licensed sites in southern England and Wales. 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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Pollution incidents should be reported to our Incident Hotline on 0800 80 70 60 (24-hour service).

<https://www.gov.uk/report-an-environmental-incident>