Report to Sizewell Site Stakeholder Group

January 2020

This report covers the Environment Agency's regulation of Sizewell A & Sizewell B nuclear sites and related issues for the period between September 2019 and December 2019.

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.

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.

No Quarterly Notification Levels (QNLs) have been exceeded in the period September-December 2019.

Current Regulatory Activities

Sizewell A

Inspections.

We undertook an inspection of arrangements for managing higher activity wastes (HAW) at Sizewell A on 9 October 2019.

We found the arrangements to be generally satisfactory and found no non-compliances.

Discharges from site.

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.

Aqueous discharge rates change depending on the decommissioning projects underway on site. A project to drain the Sizewell A pond, which has been in progress for several months, was completed at the end of November. The volume and activity of aqueous effluent discharged from Sizewell A is therefore expected to reduce considerably in 2020 although small volumes of aqueous waste are expected to be generated in future by work to decontaminate the pond walls and floor.

In quarter 3 2019, there was a small rise in tritium discharged in the aqueous effluent compared to quarters 1 and 2. Tritium discharges over the 12 months from October 2018 to September 2019 were 1.6% of the permitted annual limit.

Discharges of caesium-137 and 'other radionuclides' declined slightly in quarter 3 compared to earlier in the year. Caesium-137 discharges over the 12 months to September 2019 were 4.7% of the annual limit, while discharges of the "other radionuclides" group were 5.6% of the permitted annual limit.

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 has undertaken extra reassurance sampling of strontium-90 in marine sediment during the pond drain. This will continue although the pond has now been drained. The need to continue with extra sampling will be reassessed in 2020, depending on monitoring results during the year.

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

Fuel element debris (FED) management

In October we attended a meeting with Magnox to discuss the management of fuel element debris (FED) waste at Sizewell A. At the meeting we discussed the options for disposal of the FED, the process Magnox would follow to determine the best available option for disposal, and the work that would be required to fully characterise and retrieve the FED from the waste vaults.

Sizewell A CEAR (Compilation of EA Requirements)
We revised the wording of two requirement of the CEAR for Sizewell A to incorporate changes set by BEIS (The government's Department for Business, Energy and Industrial Strategy) to implement a BSSD (Basic Safety Standards Directive) recommendation on standardised discharge reporting from nuclear power stations.

Management of Bradwell site.

Bradwell site is now managed and run from Sizewell A, apart from a small number of staff who remain at Bradwell temporarily to operate the Interim Storage Facility (ISF).

During October and November Sizewell A staff carried out a re-entry exercise at Bradwell site to test the procedures that they will use when they carry out periodic inspection and maintenance work at Bradwell in future. Magnox is in the process of producing a report on the re-entry exercise. We will review this report when it becomes available.

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

We inspected an Environmental Surveillance audit carried out by the Operator's Internal Nuclear Assurance (INA) team on 22-23 October. We found that arrangements were generally satisfactory and the INA surveillance itself provided effective oversight of those aspects of the permit that were assessed. We identified one minor non-compliance (poor housekeeping in a laboratory which risked creation of unnecessary radioactive waste) but there was no environmental impact. We were satisfied with the Operator's response to this matter.

We carried out a joint inspection with ONR under the COMAH regime on 14 November. We will provide detail on this for the next SSG report so that the feedback from both halves of the Competent Authority is provided at the same time.

Other Compliance Matters

Following the oil leak noted in the previous report to the SSG, we identified two linked non-compliances relating the combustion plant permit. There was an unpermitted discharge to land and management arrangements did not minimise the risk of such a discharge. We were satisfied that the Operator's investigation was thorough and the actions taken to minimise the possibility of recurrence were appropriate.

Sizewell B CEAR (Compilation of EA Requirements)

In December 2019 we issued an updated CEAR for the same reasons as those detailed for Sizewell A. We also made some minor administrative changes; these will not affect routine permit compliance.

Enforcement

We have taken no enforcement action and noted no non-compliances during the period September 2019 – December 2019 for Sizewell A.

For Sizewell B we identified one minor non-compliance with the radioactive substances permit (XB3539DH) and two minor non-compliances with the combustion plant permit (EP3634LR). These are detailed above. We provided advice and guidance only in respect of these non-compliances.

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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