



Office for
Nuclear Regulation

ONR Site Report

EDF Energy – Sizewell B

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Report for period: 1 July – 30 September 2024

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Foreword

This report is issued as part of our commitment to make information about inspection and regulatory activities relating to the above site available to the public. Reports are distributed to members for the Sizewell SSG and are also available on the our website www.onr.gov.uk.

Our site inspectors usually attend Sizewell SSG meetings where these reports are presented and will respond to any questions raised there. Any person wishing to inquire about matters covered by this report should contact us via email at contact@onr.gov.uk.

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1. Inspections

1.1. Date(s) of inspection

Our site inspector made inspections on the following dates during the report period 1 July – 30 September 2024:

16 – 17 July 2024

23 – 25 July 2024

20 – 22 August

The Joint Head of Safety Regulation and specialist inspectors made inspections for the themed Chief Nuclear Inspector climate change topic on the following dates during the report period 1 July – 30 September 2024:

24 – 25 September 2024

2. Routine matters

2.1. Inspections

Inspections are undertaken as part of the process for monitoring compliance with:

- the conditions attached by ONR to the nuclear site licence granted under the Nuclear Installations Act 1965 (NIA65) (as amended);
- the Energy Act 2013;
- the Health and Safety at Work etc Act 1974 (HSWA74); and
- regulations made under HSWA74, for example the Ionising Radiations Regulations 2017 (IRR17) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).

The inspections entail monitoring the licensee's actions on the site in relation to incidents, operations, maintenance, projects, modifications, safety case changes and any other matters that may affect safety. The licensee is required to make and implement adequate arrangements under the conditions attached to the licence in order to ensure legal compliance. Inspections seek to judge both the adequacy of these arrangements and their implementation.

In this period, routine inspections of Sizewell B covered the following:

- emergency exercise;
- conventional (non-nuclear) health and safety;
- climate change;
- outage preparations; and
- periodic safety review and long term operation.

Annual level 1 emergency exercise

We assessed the Level 1 emergency exercise 'STILETTO' on 17 July 2024.

The exercise scenario consisted of a steam generator tube rupture with the reactor containing failed fuel which resulted in an off-site release of radioactivity. Additional simulated challenge was introduced when during electrical breaker racking operations a 415V ark flash event occurred leading to an operator fatality and an operator sustaining significant burns and shrapnel injuries. There were also a number of equipment failures and a loss of off-site power as a consequence of the reactor trip.

The licensee's emergency response achieved the following key outcomes:

- Established three on-site command centres at the Main Control Room (MCR), Emergency Control Centre (ECC) and Access Control Point (ACP) together with support from the corporate Central Emergency Support Centre (CESC) located off-site.
- Completed a full site muster, accounting for all persons.
- Located and transferred the casualty to the medical facility for further medical assessment and treatment.
- Established a quarantine around the fatality area and implemented crime scene management.
- Made timely and appropriate declaration of an Off-Site Nuclear Emergency (OSNE).
- Deployed and connected the high pressure pump deployable back-up equipment.

Overall, the licensee effectively managed the event, noting that some elements of the response could have been implemented in a more timely manner. We also identified a number of minor areas for future enhancement to the licensee's emergency response and have raised a level 4 regulatory issue to monitor the licensee's progress.

Conventional (non-nuclear) health and safety inspection

We sampled evidence to determine the licensee's compliance with the Construction (Design and Management) Regulation 2015 (CDM). It specifically focused on projects that the licensee describe as 'relocated facilities'. These new construction projects included the outage store, the training centre, admin building, replacement car park and visitors centre. The inspection assessed whether the licensee were carrying out their duties in line with the legal requirements. CDM has specific duties, such as Client, Principal Contractor and Principal Designer. The licensee has appointed itself in all three roles and as such our inspection sampled how it carried out these roles. Specific focus was on the planning, managing and monitoring of the construction projects at site. The manner in which they did this was compared against relevant good practise such as L153 - Managing health and safety in construction.

The initial scope was also to determine compliance with the Provision and Use of Work Equipment Regulations (PUWER) and Lifting Operations and Lifting Equipment Regulations (LOLER) in relation to construction projects. However, due to the changing nature of work on construction sites we were not able to see evidence to form a judgement within the inspection schedule as no work was taking place that would be covered by these regulations. Therefore, we were unable to rate against these regulations.

We judged that from the evidence sampled during the inspection, the licensee are adequately complying with the requirements of CDM15.

Chief Nuclear Inspectors Themed Inspection on climate change

The inspection formed one of five site-based inspections undertaken as part of the Chief Nuclear Inspector's (CNI) Themed Inspection on climate change.

The CNI Themed Inspection on climate change sought assurance that the nuclear industry within Great Britain:

- Understands and has taken account of recent climate change projections in relevant safety cases and hazard definitions.
- Is able to demonstrate that activities are and will remain safe and secure in the future subject to the reasonably foreseeable effects of climate change.
- Has effective arrangements to monitor and review climate change information to determine if additional measures are needed to ensure that activities remain protected in the future.

The inspection considered the licensee's approach to climate change. This included sampling how the licensee incorporates climate change for specific external hazards; understanding how key structures, systems and components may be impacted by climate change; mitigation measures planned or implemented by the licensee; and future work.

This was a themed inspection to understand how the nuclear industry is managing climate change and to identify learning. It was not a licence condition compliance inspection and no ratings were provided against licence conditions. We formed a judgement on whether our regulatory expectations in relation to climate change had been met; been partially met and/or there are plans in place to ensure that they are met; or not been met and there are no current plans in place to ensure that they are met.

Learning identified as part of this, and the other site-based inspections will feed into the outputs of our CNI Themed Inspection on Climate Change and will be included within our final Summary Report, which will be published on our website.

Based on the evidence sampled, we judged that the licensee partially meets our expectations in relation to climate change, with plans in place to ensure that they are met in future.

Outage preparations

The outage intentions meeting for refuelling outage no.19, commencing in October, was held during the period. We will continue routine interactions on outage readiness until the outage commences.

Periodic safety review

Our assessment of the third periodic safety review (PSR) for Sizewell B remains ongoing. Our decision on the adequacy of the PSR is due in January 2025. During this reporting period a number of interventions with the licensee have been undertaken by our specialist inspectors to assist in their assessment work.

Long term operation

The licensee has requested that we conduct a review of their work to assess the technical and safety issues associated with extending the operational lifetime of Sizewell B by 20 years to 2055. Whilst we do not have a formal role in determining the generating lifetime of a power station (this is the licensee's responsibility), we have agreed to review their proposal, consistent with our enabling philosophy. This review remains ongoing.

Members of the public, who would like further information on our inspection activities during the reporting period, can view site Inspection Records on our website: www.onr.org.uk.

Should you have any queries regarding our inspection activities, please email contact@onr.gov.uk.

2.2. Other work

There is no other work to report.

3. Non-routine matters

Licensees are required to have arrangements to respond to non-routine matters and events. Our inspectors judge the adequacy of the licensee's response, including actions taken to implement any necessary improvements.

On 4 September 2024 we were notified of an incident that occurred during the construction of the new outage store where a construction contractor had sustained a foot injury following the failed lift of a staircase stringer.

We inspected the scene of the incident on the 11 September 2024 and commenced pre-liminary enquiries. These enquiries continue.

4. Regulatory activity

We may issue formal documents to ensure compliance with regulatory requirements. Under nuclear site licence conditions, we issue regulatory documents, which either permit an activity or require some form of action to be taken; these are usually collectively termed 'Licence Instruments' (LIs) but can take other forms. In addition, inspectors may take a range of enforcement actions, to include issuing an enforcement notice.

- No LIs, enforcement notices or enforcement letters were issued during this period.

5. News from ONR

For the latest news and information from us, please read and subscribe to our regular email newsletter 'ONR News' at <https://www.onr.org.uk/news/newsletter/>.

6. Contacts

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References

There are no sources in the current document.