

Office for Nuclear Regulation (ONR)

Site Report for

Sizewell B

Report for period 1 October to 31 December 2021

Foreword

This report is issued as part of ONR's 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 ONR website (<http://www.onr.org.uk/llc/>).

Site inspectors from ONR 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 ONR.

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1. Inspections

1.1. Dates of Inspection

The ONR site inspector made inspections on the following dates during the report period 1 October to 31 December 2021:

- 5 to 7 October
- 2 to 4 November
- 16 to 18 November
- 1 to 2 December

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 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 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:

- examination, maintenance, inspection and testing;
- management of operations including control and supervision;
- emergency preparedness;
- incidents on the site.

Members of the public, who would like further information on ONR's inspection activities during the reporting period, can view site Intervention Reports at www.onr.org.uk/intervention-records on our website www.onr.org.uk. Should you have any queries regarding our inspection activities, please email contact@onr.gov.uk.

Examination, maintenance, inspection and testing

Throughout 2021-22, ONR has been carrying out a Chief Nuclear Inspector's (CNI) themed inspection on the management of ageing assets. This comprises a series of inspections across nuclear site licensees, the purpose of which is to seek evidence of sustainable programmes for the management of ageing assets against four themes:

- monitoring of ageing;
- organisational capability;
- obsolescence;
- ongoing investment.

During the reporting period two teams of specialist inspectors visited the site to inspect Sizewell B as an example of EDF Energy's arrangements for the management of ageing assets.

The first team consisted of specialist inspectors from the fault studies, electrical engineering and structural integrity disciplines, and considered monitoring of ageing and obsolescence. The inspection sampled EDF's arrangements for ageing management and their implementation for the systems under consideration; for the purposes of the inspection, these were the:

- condensate storage transfer system;
- reactor protection system;
- perimeter intruder detection system.

The inspection included discussions with various responsible members of EDF staff, both at Sizewell B and at the central corporate headquarters. This included system engineers, senior management, and independent nuclear assurance evaluators. Overall, the team concluded that the arrangements for ageing management had been adequately implemented in line with ONR's expectations, and some examples of good practice in the proactive ageing management of plant were identified.

The second team consisted of specialist inspectors from the leadership and management for safety and quality and supply chain management disciplines, and considered organisational capability and ongoing investment. The inspection comprised discussions with EDF staff (both at Sizewell B and in the corporate headquarters), a walkdown of ongoing investment projects at the site relevant to ageing, and a review of plant records and other documentation. Overall, the team considered that EDF demonstrated that it was maintaining adequate arrangements and organisational capability to support the management of ageing assets at Sizewell B.

Management of operations including control and supervision

The nominated site inspector carried out an inspection of Sizewell B's implementation of its technical specifications, which are the means by which the site ensures that it complies with the limits and conditions of its safety case. The inspection was carried out by sampling some of the activities underpinning compliance with those technical specifications, and by discussing the conduct of these operations with control room staff.

The site inspector considered that the requirements of the technical specifications were well captured in surveillance test procedures, and even when those requirements were complex the test procedures and supporting documents and databases provided sufficient information and cross-references that it was easy to confirm that the requirements had been met. It was also clear from the ease with which the control room staff explained the various procedures and databases, and navigated the technical specifications, that they were very familiar with the contents and format of the technical specifications.

Emergency preparedness

During December Sizewell B performed its annual demonstration of its emergency arrangements to ONR. The scenario tested was a straightforward security threat coupled with an independent plant fault, complicated by the fact that the scenario took place outside of normal working hours and made use of the off-site alternate emergency control centre.

Overall the ONR assessment team considered the exercise to be an adequate demonstration of the site's arrangements, and noted a very strong performance by the teams in a number of the control centres.

Incidents on the site

The nominated site inspector carried out an inspection of Sizewell B's arrangements for notifying, recording, investigating and reporting incidents on the site. He spoke to members of the licensee organisation, viewed incident reports and other follow-up and summary reports, and interrogated the licensee's own databases to gather information for his inspection. He concluded that the licensee has robust procedures in place to identify, categorise and report incidents on the site. In particular, he considered that events were being reported to ONR in accordance with our guidance, and were being investigated by suitably qualified and experience persons.

He also noted that the various departments within the licensee's organisation were able to demonstrate ownership of their own trending data, and were able to point to specific improvements they had made as proof of the efficacy of their trending.

3. Non-Routine Matters

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

Matters and events of particular note during the period were:

- In November 2021, during the ongoing dry fuel store campaign, ONR was notified that routine checks had revealed the presence of a damaged fuel element in the dry fuel store cask that was currently being loaded.

The safety case for long-term storage of fuel at the dry fuel store currently only covers undamaged fuel. As a result, as fuel from the spent fuel pond is loaded into casks for long-term storage in the dry fuel store, there are a number of checks to ensure that the fuel that has been loaded is not damaged. It was one of these checks that identified the damaged fuel. The checks prevent casks with damaged fuel from being sent to the dry fuel store, but do not stop it from being stored in the spent fuel pond building.

There was no immediate safety consequence to this discovery, and at present the fuel remains sealed in the cask in the spent fuel pond building. We have no regulatory concerns about the safety of the cask in its current location, and are engaging with EDF as it considers its options for dealing with the affected cask.

4. Regulatory Activity

ONR may issue formal documents to ensure compliance with regulatory requirements. Under nuclear site licence conditions, ONR issues 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 the Office for Nuclear Regulation, please read and subscribe to our regular email newsletter 'ONR News' at www.onr.org.uk/onrnews

6. Contacts

Office for Nuclear Regulation
Redgrave Court
Merton Road
Bootle
Merseyside
L20 7HS

website: www.onr.org.uk
email: Contact@onr.gov.uk

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