



# Office for Nuclear Regulation (ONR) Site Report for Sizewell B

Report for period 01 July – 30 September 2019

## 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 of the Sizewell Site Stakeholder Group (SSG) and are also available on the ONR website (<http://www.onr.org.uk/lrc/>).

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 July to 30 September:

- 17-18 July.
- 31 July.
- 20-22 August.
- 10-13 September.

## 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).
- 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;
- Modifications to plant, equipment and safety cases;
- Conventional (non-nuclear) fire safety.

Because Sizewell B has just finished a refuelling outage, where a significant amount of inspectorial effort was spent examining specific maintenance activities, the purpose of maintenance inspection was not to examine the conduct of maintenance but rather the planning and monitoring of maintenance and the management of defects. To this end the ONR site inspector, supported by a structural integrity specialist inspector, held discussions with the engineering groups responsible for defining and reviewing maintenance strategy and for monitoring the health of the plant; they also held discussions with the maintenance group responsible for planning and monitoring maintenance activities. They sampled corporate procedures; maintenance and system health-related reports; and the inputs to, and outputs from, a number of review meetings. Overall, they considered that the licensee had robust arrangements for the planning and monitoring of maintenance, and that these met the expectations set out in ONR's guidance. There was evidence that the arrangements were being adhered to in practice. Where review or monitoring processes indicated issues with either the delivery of maintenance or the health of systems, the inspectors were satisfied that action was being taken to address these issues.

The inspection of modifications to plant was part of a series of inspections, across the EDF fleet, looking at the implementation of the safety case anomalies process (SCAP) – the process followed when issues identified with plant or operations have the potential to challenge the safety case. The inspection comprised a discussion of the local and company processes for safety case anomalies and operability (availability) assessments; and the review of a sample of assessments undertaken as a consequence of those processes. Overall the inspectors involved – the site inspector and an internal hazards specialist inspector – were satisfied that the licensee was managing safety case anomalies appropriately and in accordance with its processes, and fed the learning from this site back into the larger intervention.

The fire safety intervention focused on both the management of fire safety and the practical fire safety provision within selected areas and facilities across the site. The fire safety inspector conducted meetings to assess the approach being taken to the management of fire safety; examined relevant fire safety procedures and assessments; and undertook a walk-through of a number of pre-selected facilities on the site, paying particular attention to the practical application of the fire safety strategy. Overall, the inspector's impression was that the licensee applies a robust and pragmatic approach to fire safety, ensuring that it is taken seriously and is given the due consideration it deserves, and that fire safety arrangements are effective and being implemented to a satisfactory standard.

During the reporting period, ONR judged the arrangements made and implemented by the site in response to safety requirements to be satisfactory in the areas inspected. Where improvements have been identified, the licensee has made a commitment to address those issues, and ONR inspectors will closely monitor progress during future site inspections. Where necessary, ONR will take formal regulatory enforcement action to ensure that appropriate remedial measures are implemented to reasonably practicable timescales. Members of the public, who would like further information on ONR's inspection activities during the reporting period, can view site Intervention Reports on our website: [www.onr.org.uk/intervention-records](http://www.onr.org.uk/intervention-records). Should you have any queries regarding our inspection activities, please email [contact@onr.gov.uk](mailto:contact@onr.gov.uk).

In addition to the programme of routine compliance inspections, on 18 July ONR's Head of Assessment for Operating Reactors attended site with the site inspector and the outage project inspector for the outage start-up meeting. The purpose of the start-up meeting was for the licensee to present to the ONR the outcome of the work carried out during refuelling outage 16, in support of gaining consent to start-up. No issues were identified that prevented the restart of the reactor, recognising that there was still work to be completed that would be monitored by the ONR site and project inspectors.

### **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 included a leak from the ammonia bulk storage tank pipework. On 12 July a leak was reported from bulk ammonia tank (BAT) 2. The licensee estimated there was approximately 5 t of ammonia in the tank, all of which drained into (and was contained by) the tank bund. Neither operators nor the public were exposed to harmful levels of ammonia. The licensee entered operational alert and manned up the emergency control centre, and Sizewell Beach was cordoned off as a precautionary measure, although there was no off-site release.

Preliminary enquiries were made on-site on 17 July by the ONR site inspector and a structural integrity specialist. They concluded that:

- The failure was not directly related to the fleet-wide corrosion issues that EDF has been managing. This was a failure that stemmed from a number of specific, unrelated and long-standing historical factors. Indeed, the Systems Engineer followed the appropriate corrosion management processes once degradation had been identified.
- Only a limited amount of ammonia is allowed on site, and there was no evidence that the licensee lost control of the amount of ammonia on site, so the inspectors did not believe it was credible to have an accident involving significantly larger quantities of ammonia than were observed in practice.
- The handling of ammonia on the day of the leak and the response to the incident were both good.

The licensee’s investigation is ongoing, and will be reviewed by the site inspector once it is complete to ensure that the causes have been correctly identified, and appropriate actions have been put in place to address identified shortfalls.

#### 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.

The following LIs, Enforcement Notices and Enforcement letters have been issued during the period:

- Licence instrument 555 (consent to the start-up of Sizewell B).

**Table 1  
Licence Instruments and Enforcement Notices Issued by ONR during this period**

Date	Type	Ref No	Description
22/07/19	Consent	555	Consent to the start-up of Sizewell B

Reports detailing the above regulatory decisions can be found on the ONR website at <http://www.onr.org.uk/pars/>.

#### 5 NEWS FROM ONR

Insight into ONR’s work as an independent regulator of the nuclear industry can be found in ONR’s Regulation Matters. The online publication (<http://www.onr.org.uk/regulation-matters.htm>) reports on the key themes and developments in each of ONR’s regulatory programmes and provides an update about the ongoing changes at ONR. <http://www.onr.org.uk/index.htm>.

For the latest news and updates from ONR visit the website and sign up for our ebulletin (<http://www.onr.org.uk/ebulletin/index.htm>).

##### 5.1 Enforcement Action

A summary of enforcement action is provided below. Further detail is available on [our website](#).

- On 19 July we served [Improvement Notices on the Atomic Weapons Establishment \(AWE\)](#) relating to the way the company undertakes risk assessments for organisational change which may affect safety.

- Following a court hearing on July 23, 2019 at Plymouth Magistrates' Court, [Devonport Royal Dockyard Ltd \(DRDL\) was fined £666,667](#) and ordered to pay costs of £27,611.82. It follows an incident in September 2018 involving a crane at the Devonport 9 Dock facility. During a lifting operation to disassemble a stack of test weights, the weights became detached and fell towards a worker, narrowly missing him. This was a conventional health and safety incident and there was no nuclear or radiological risk to workers or the public
- On 20 August 2019 we provided [EDF Energy Nuclear Generation Ltd with permission for Reactor 4 at Hunterston B to return to service](#) for the next period of operation. Permission is for up to 16.025 terawatt days, which is approximately four months operation.
- Recognising the good progress made so far, on 16 September 2019 we agreed to [extend two Improvement Notices issued to EDF Energy Nuclear Generation Ltd \(EDF\)](#) from the original compliance date of 16 September, 2019, to 16 December, 2019. The notices were served in January 2019 following an incident at Heysham 1 power station. We have been closely monitoring the work to comply with both notices and will continue to do so to ensure full compliance.

## 5.2 Regulatory Updates

- We have revised our [Licencing Nuclear Installations guidance](#). The revised guidance replaces the 4th edition, published in January 2015. The key changes to the guidance have been made to reflect legal changes as a result of the introduction of new legislation and to include reference to updated processes and procedures.
- Together with the Health and Safety Executive (HSE) we have published a [new Approved Code of Practice \(ACOP\) and guidance](#) to assist dutyholder compliance with the new Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPIR).

## 5.3 Stakeholder Engagement

- On 18 September we held our Finance Industry Seminar which brought together finance colleagues from licence holders to discuss how we plan and forecast our charges, as part of our drive to be open and transparent about how we charge for the regulatory services we provide.
- On the week commencing 23 September, we attended an OECD Nuclear Energy Agency Workshop on Stakeholder Involvement: Risk Communication, as part of a UK contingent which included other regulators, government bodies, supply chain representatives and attendees from nuclear interest and pressure groups. The workshop explored how best to communicate radiation risk and how to ensure stakeholder involvement and participation. Further details about this event can be found here: <https://www.oecd-nea.org/civil/workshops/2019/stakeholder/>
- On the week commencing 16 September we attended the 63rd International Atomic Energy Agency (IAEA) General Conference in Vienna. The annual General Conference is an opportunity for all IAEA Member States to jointly consider matters related to the IAEA's ongoing work, budget and priorities. This year, over 3000 participants attended, including delegates from 152 of the IAEA's 171 Member States.

## 5.4 Corporate News

- The [Department for Work and Pensions](#) is looking to appoint two non-executive directors to [ONR's Board](#). More details on the roles and how to apply can be found on the HM Government Public Appointments website.

- On 10 July we published our [gender pay report for 2018/19](#). We are committed to improving diversity by promoting and maintaining an inclusive working environment and are pleased to report positive shifts in the gender pay gap indicators, where our mean gap of 27% has reduced by 8.2% since our second report in 2017/18.

All our latest news is available on our website [www.onr.org.uk](http://www.onr.org.uk)

## 6 CONTACTS

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