



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

Report for period 1 April to 30 June

## 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 enquire about matters covered by this report should contact ONR.

## TABLE OF CONTENTS

1	INSPECTIONS .....	3
2	ROUTINE MATTERS.....	3
3	NON-ROUTINE MATTERS.....	4
4	REGULATORY ACTIVITY .....	5
5	NEWS FROM ONR.....	6
6	CONTACTS.....	8

## 1 INSPECTIONS

### 1.1 Dates of inspection

The ONR site inspector and ONR specialist inspectors made inspections on the following dates during the report period 1 April to 30 June:

- 15 to 18 April.
- 21 to 23 May.
- 3 to 6 June.
- 10 to 14 June.
- 17 to 20 June.
- 24 to 27 June.

## 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:

- Management of refuelling outage 16 (RO16).
- 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](http://www.onr.org.uk/intervention-records) on our website [www.onr.org.uk](http://www.onr.org.uk). Should you have any queries regarding our inspection activities, please email [contact@onr.gov.uk](mailto:contact@onr.gov.uk).

#### Management of RO16

The majority of ONR's inspection activities during the reporting period was focussed on RO16. ONR's activities fell into two broad categories:

- Inspections seeking assurance that the licensee is managing work safely and in accordance with regulatory expectations. In RO16 this included inspections by specialist inspectors from the radiation protection and conventional health and safety disciplines, as well as an inspection of compliance with LC 26 (control and supervision of operations) carried out by the site inspector.
- Inspections seeking assurance that the licensee is carrying out the examination, inspection, maintenance and testing necessary to support the

safe operation of the reactor and associated systems until the next refuelling outage. A considerable amount of examination, inspection, maintenance and testing can only be carried out while the reactor is shut down, and a commensurate amount of ONR effort is focussed on ensuring that the licensee identifies all the necessary maintenance, and carries it out appropriately. In RO16 inspections were carried out by specialist inspectors from the structural integrity, mechanical engineering, electrical engineering, control and instrumentation, fault analysis and human factors disciplines.

The only issue relating to the safe management of work related to working at height practices, and in particular the reliance on harnesses for working at height; good practice is to design out the need for harnesses wherever possible, and to ensure that appropriate harness points are provided if designing them out is not possible. The conventional health and safety inspector raised a regulatory issue requiring the licensee to review its practices for working at height during the outage, which it subsequently did; following ONR's review of the response, the issue was closed.

The assessment of examination, inspection, maintenance and testing work concluded that all necessary work had been completed by the end of RO16 to support safe operation until the next refuelling outage, RO17. There are two remaining regulatory issues, relating to concerns which were addressed for this outage but which also have longer-term implications:

- Throughout the outage, the licensee experienced a number of issues with the in-containment polar crane functionality. ONR inspectors examined both the decision making processes involved in resolving the issues and proving the crane's functionality, and were satisfied that the licensee adopted a safe and suitably cautious approach.
- Specialist inspectors identified a shortfall in the core reload safety case, concerning boron dilution faults while shut down but with one reactor coolant pump in operation. The shortfall was satisfactorily addressed by the licensee for this outage, but ONR is tracking the longer-term generic resolution of the issue through a regulatory issue, to be resolved prior to refuelling for the next operational cycle (cycle 18).

### Incidents on the site

The site inspector carried out an inspection of the licensee's implementation of its arrangements for LC 7 (incidents on the site), specifically its arrangements for identifying, categorising, notifying and investigating events. The inspection was based on a sample of events, including those reported below in section 3. The site inspector considered that the licensee was adequately implementing its arrangements, in a manner consistent with ONR's expectations.

## **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:

- On 1 May the station experienced multiple instrumentation failures related to the plant control system (separate to the plant protection system) in the main control room (MCR). Local instrumentation, where it existed, remained available. The station recognised that the plant itself had been in a stable

condition prior to the failures, and that the protection systems were still operational, and so reduced load but did not shut the reactor down. The fault was isolated, and instrumentation brought back online, within 24 hours. The plant remained stable throughout, and there was no risk to workers or the public. The plant control system was replaced as part of RO16.

- On 4 May one of a pair of gas containment valves in the reactor building did not close as expected whilst carrying out a surveillance test. At the time the valve was not declared inoperable, and this was not identified until several days later. Throughout that time the second of the pair of isolating valves was closed, and remained closed; primary containment was therefore maintained.
- On 14 May it was observed, whilst performing a surveillance test, that one side of one of the fuel storage pond grids had become detached at the top of the grid. The grid section does not contain fuel, and the integrity of the grids that do contain fuel was subsequently demonstrated to be unaffected.

All of the events described were followed up by the site inspector as described in section 2. In each of the three cases the initial event had been dealt with appropriately by the licensee, and had subsequently been investigated to prevent reoccurrence and to identify wider learning.

#### 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 LI was issued during the period:

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

Date	Type	Ref No	Description
03/05/2019	Agreement	556	Agreement to Allow Sizewell B Dry Fuel Store Processing to Move from Commissioning Controls to Normal Operations

Following completion of Sizewell B Dry Fuel Store (DFS) active commissioning the licensee requested that ONR release its regulatory hold-point on implementation of the DFS operational safety case, allowing the facility to move from commissioning to normal operations.

The hold point was placed to ensure learning from DFS active commissioning was acted on and any necessary changes made to the DFS safety case. ONR therefore undertook a readiness inspection to determine whether this had been the case.

ONR’s readiness inspection confirmed that learning from DFS active commissioning had been implemented, with improvements to operating processes justified by appropriate safety justification. The inspection also found that the licensee had undertaken a suitable review of the DFS safety case and had made substantial preparations in readiness to implement the safety case. The inspection found that NGL had effective arrangements to manage the remaining work, including plant modifications, DFS procedures and issuing maintenance requirements for DFS equipment mobilisation. This remaining work is being effectively monitored by the licensee’s Independent Nuclear Assurance function to ensure completion before commencement of further fuel transfers into the store.

ONR therefore considered that satisfactory progress had been made to allow ONR to release its hold point. A report detailing this regulatory decision can be found on the ONR website at <http://www.onr.org.uk/pars/>.

## 5 NEWS FROM ONR

### Enforcement Action

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

- On 2 April Sellafield Ltd were fined £380,000 following ONR's prosecution for safety breaches relating to equipment used for the processing of plutonium.
- ONR notified Devonport Royal Dockyard (DRDL) of its intention to prosecute following an incident involving a crane that occurred in September 2018. Proceedings are scheduled to commence at Plymouth Magistrates' Court on 23 July 2019.
- Improvement notice issued to Sellafield Ltd in April 2019 following an incident in the waste vitrification plan in February 2019 where a container was not welded shut.

### Regulatory Updates

- In April we announced the appointment of two NGOs to the Chief Nuclear Inspector's Independent Advisory Panel (IAP) to increase diversity of views and strengthen our openness and transparency. We introduced the Chief Nuclear Inspector's IAP in 2016 to provide us with independent advice on nuclear matters.

### Stakeholder Engagement

- In May we published our strategic framework for international engagement, setting out the priority objectives and criteria for international engagement up to 2025. The framework is available on our [website](#).
- We launched two public consultations in April and June, both relating to the Euratom Basic Safety Standards Directive 2013. The first is a HSE consultation being managed by ONR on a new [Approved Code of Practice](#) that will assist dutyholder compliance with the new Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPiR). The consultation closed on 5 June but was extended for local authorities until 27 June as some of the consultation took place during the pre-election period for Local Government. A final version of the ACOP will be published in autumn 2019. The second is on [updated guidance](#) to support the amendments to the Carriage of Dangerous Goods and use of Transportable Pressure Equipment Regulations (CDG). This remains open until 19 July 2019. A final version of the guidance will be published in late summer 2019.
- On 15 and 16 May we hosted the 23rd meeting of the Heads of European Radiological protection Competent Authorities (HERCA) in Liverpool. The meeting brought together the heads of radiological protection competent authorities from 22 European countries and involved over 50 experts from across Europe. HERCA is a voluntary association where the members work together to identify common issues and propose practical solutions to ensure the highest levels of radiation protection in Europe.
- On 23 May our Chief Nuclear Inspector, Mark Foy led a [webinar](#), focusing on the work we do to regulate the industry in how it manages the risks arising from external hazards. Over 25 external stakeholders including NGOs joined the webinar.
- We held our annual [Industry Conference](#) on 5 June 2019 focusing on the theme of 'Open for Innovation'. More than 100 senior representatives from industry, government, other regulators, academics and research bodies attended with speakers including Joanna Whittington, Director General, Energy and Security at BEIS and Rumina Velshi, President of the Canadian Nuclear Safety Commission.

## Corporate News

- Mark McAllister joined ONR on 1 April, succeeding Nick Baldwin CBE as our new Chair. As Chair Mark will be responsible for ensuring that we deliver our mission to provide efficient and effective regulation of the nuclear industry on behalf of the public.
- In April, we published our [Corporate Plan for 2019/20](#), setting out our priorities and objectives for 2019/20. Maintaining the delivery of core regulatory functions and holding industry to account on behalf of the public remain at the heart of everything we do.
- We have been praised by the Nuclear Skills Strategy Group (NSSG), a government organisation, for ensuring we have the right capability and capacity to meet our regulatory demands. They removed the regulatory capacity risk placed on us in 2016 as recognition of our ongoing commitment to developing our staff and expanding our recruitment pipelines.
- We published our [Annual Report and Accounts](#) on 20 June highlighting our performance and key achievements in 2018/2019. We have continued to deliver our prime purpose of public safety, ensuring that dutyholders met the required standards of safety and security that society expects. We completed more than 750 inspections across 37 licensed sites, granting permission for 30 nuclear-related activities, serving nine improvement notices and instigating four prosecutions.

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>).

## 6 CONTACTS

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